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TRAIL & LANDSCAPE

A Publication Concerned With Natural History and Conservation

The Ottawa Field-Naturalists' Club

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The Ottawa Field-Naturalists' Club

— Founded 1879 —

President
Eleanor Zurbrigg

Objectives of the Club: To promote the appreciation, preservation and conservation of Canada's natural heritage; to encourage investigation and publish the results of research in all fields of natural history and to diffuse the information on these fields as widely as possible; to support and co-operate with organizations engaged in preserving, maintaining or restoring environments of high quality for living things.

Club Publications: THE CANADIAN FIELD-NATURALIST, a quarterly devoted to reporting research in all fields of natural history relevant to Canada, and TRAIL & LANDSCAPE, a quarterly providing articles on the natural history of the Ottawa Valley and on club activities.

Field Trips, Lectures and other natural history activities are arranged for local members; see "Coming Events" in this issue.

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Welcome, New Members

Ottawa Area

J. Blackadar & C. McGregor
Paula Carty
Robert Cermak
Xavier Chatellier
Roger Cunningham & family
Cindy Deachman
Georgina Doe
Barry George & family
Andrea Howard
Ann Lane & family
Jennifer & Marc Leblanc
Linda Redekop & family
Rosalind Spencer & Michael Hoffman

Other Areas

Rebecca Zeran, Long Sault ON

Dave Smythe
Membership Committee
November 2000

Letter from the President

September 14, 2000

Dear Fellow Club Members,

You have been kept apprised of developments relating to the Manning Bequest through two previous articles in *T&L*. My predecessor, Dave Moore, announced the very generous $100,000 donation from Tom Manning in the July-September 1999 issue of *T&L* (33(3):115) and invited suggestions as to its disposition. Frank Pope, in *T&L* 34(2):54, summarized the six submissions received. I would like to take this opportunity to thank all those who submitted proposals.

I am pleased to announce that the OFNC Council, with the assistance of the Finance Committee, has reached a decision on how the bequest should be used. In essence, it has been decided that:

1. The $100,000 principal amount (plus accumulated interest of about $4,100 for 1999/2000) will be invested in a portfolio of instruments designed to provide a secure and predictable annual revenue to the Club.

2. Beginning in 2000/2001, and in each of the following **four** financial years, annual interest would be allocated as follows:

   a. 80% to the Canadian Field-Naturalist to defray, in whole or in part, costs of publication for selected papers or special issues dealing with northern North America, particularly but not exclusively those dealing with the Canadian Arctic;
   b. 20% to the Club for projects to be selected annually by Council.

3. This allocation will be reviewed by the Council in 2004.

By keeping intact the capital of the bequest, we will ensure that it remains a permanent memorial to the generosity of Tom Manning. We estimate that the annual interest yield will amount to some $6000. The concentration of the allocation on publications related to the Arctic of course reflects Mr. Manning's own life-long interests. At the same time, the Club, which has been facing budgetary constraints in recent years, will now enjoy some flexibility in funding worthwhile projects. These will be clearly attributable to the Manning legacy.

Eleanor Zurbrigg
President

From the Editor

Trail & Landscape has been a large part of my life for the past ten years and it has been an equally large part of Sandra Gushue's life as she too has spent long hours at the computer formatting our journal. We have enjoyed working together to produce a journal of which we are very proud. However, it is time for us to move on and to let others put their mark on this fine journal.

In 1991, when I took over the editing from Elizabeth Morton, *T&L* had recently received a make-over. New cover designs had been created by Marc Guertin (starting with volume 22) and Suzanne Blain had set us up with Ventura Desktop Publishing and created the page layouts and other niceties. We had a beautifully crafted journal which inspired others to submit articles documenting our local natural history, conservation issues, Club business, as well as being a vehicle for poetry, sketches, and more personal writing on trips or experiences related to natural history.

My first few issues as editor were under the patient tutelage of Suzanne Blain who taught me to use Ventura. At that time we had a host of volunteer typists and proof readers to get articles ready for publication. A few were dribbling in on 5 1/4" diskettes. Then I took off for a year in Scandinavia. The Club (and I) were very lucky that Sandra Gushue willingly and quickly learned Ventura (with much help from Dave Thomson), and with the late Bill Gummer as editor, they put together five beautiful issues.

Bill Gummer remained my Associate Editor until his death in 1999. Then Joyce Reddoch, and later, my husband Irwin Brodo, filled that important position. Now most of our material comes in via e-mail and there is very little to type. Proofreading is done by the Associate Editor.

Trail & Landscape is now at another crossroads. Starting with the next issue, there will be a new editor and new assistant. I shall serve as Associate Editor. We are investigating new ways of putting *T&L* together. Our version of Ventura is dated and new programs are on the market. Questions that we are asking are: Would WordPerfect suffice or should we invest in a newer (and more expensive) desktop publishing program? Should we upgrade Ventura? Should we be scanning in our own pictures? We welcome suggestions and hands-on-help in these matters.

Again, a big thank you to Sandra Gushue for her collaboration over these many years.

Fenja

Conservation Matters

Stan Rosenbaum

20 November 2000

Leitrim Wetlands

In a further attempt to avert the construction of a subdivision on the Leitrim Wetlands, we wrote to the Minister of Fisheries and Oceans, Herb Dhaliwal, whose department is required to conduct environmental screening of the project. We requested that he refer the proposals to a Panel Review, citing disruption to fish habitat in Findlay Creek, and damage to the provincially significant (Class I) wetland. Local authorities have obscured the issue by restricting the term "wetland" to part of the area that would not be developed. However, the proposed subdivision would occupy the lowest area, requiring massive lowering of the watertable by deep ditches and dredging of Findlay Creek. To prevent draining of the undeveloped area, the plan calls for installation of a waterproof membrane (consisting of bentonite clay and rocks) between it and the planned subdivision. But the underlying soil and bedrock are considered by some experts as too porous for this to work, and there appears to be no plan, budget or legal liability for maintaining the membrane over the years. Also, there is concern that migration of polluted groundwater, from a former NRC toxic chemical special waste compound towards the housing development would be increased as a result of drainage.

The Mayoralty All-Candidates' Debate

This 2-hour meeting on environmental issues was sponsored by the Federation of Citizens' Associations, Greenspace Alliance for Canada's Capital (GACC), Transport 2000 Ontario, and Urban Ecosystem Stewardship Council, Ottawa-Carleton, and supported by the OFNC and other groups. After debate on four questions posed by the organizing panel, there was time for only 14 questions from the floor which included two on Leitrim Wetlands. Since both of the serious contenders, Bob Chiarelli and Claudette Cain, were all-too-well acquainted with that issue, no direct new election promises were to be expected on Leitrim, but both candidates made environmental commitments of a more general kind. The GACC has issued a summary of these. From Chiarelli, they include a statement that environmental advice through an Environmental Advisory Committee (EAC) should be resourced on par with economic development advice and this "should be institutionalized." He was aware of the concerns regarding the South March Highlands. Cain made similar promises, stating that she was in favour of a well-resourced EAC, and declaring that staff reports would have to include environmental impact state-

ments delivered by the Environmental Advisory Committee to Council. (Some members of the Gloucester EAC might have doubts about that affirmation from their present City Mayor, but with the election of Chiarelli it is now "water under the bridge.") The most important outcome of the meeting was that the RMOC council chamber was packed with well over 200 members of the public. Perhaps the new Mayor-Elect got the message.

Environmental Advisory Committees

Several members of the Conservation Committee attended a meeting held at (the old) Ottawa City Hall last 26 October on the topic of Environmental Advisory Committees (EACs) for the new City of Ottawa. This meeting was an initiative of municipal staff reporting to the Transition Team. This meeting, and a flurry of activity leading up to it, seems to have been an outcomc of requests from the existing seven local EACs and other parties, including the OFNC and other environmental groups. We presented a letter with various comments, including criticism of a structure that puts environmental planning within the duties of a new department to be called Planning, Environment and Infrastructure Policy. Ned Lanthrop, the incoming Director, declared his commitment to making his new department a "Centre of Excellence" on environmental issues for the new city, avoiding "We" versus "They" problems that occur when there are two opposing departments. Attendees at the meeting felt that this could work, provided both the General Manager and Council are committed to achieving high environmental standards. Obviously, the public and NGOs must hold them accountable.

Fernbank Wetland (Goulbourn)

In August we wrote to the Ontario Minister of Natural Resources about the downgrading of Fernbank Wetlands in Goulbourn Township. We had heard that the rules for classification of wetlands had been altered, with the effect of reducing the number of wetlands that qualify to be protected as provincially significant. Our concern was that the rules might have been altered to meet an increased demand for housing in areas such as the Ottawa-Carleton region. Meanwhile, we learned independently that Fernbank had been re-classified back to provincially-significant, as a result of new information about its true boundaries, provided in part by an OFNC member. Then, in a reply from a senior assistant to the Minister, we were informed that:

"Ontario's provincially significant wetlands are protected from incompatible development as described in the Planning Act and its Provincial Policy Statement. This definition does not include the activity of draining wetlands. Therefore, wetlands may be legally drained unless the draining of a wetland

contravenes the Fisheries Act, Drainage Act or some other federal, provincial or municipal legislation."

But then, the next paragraph reads:
"This ministry is committed to the protection of wetlands in Ontario. This is done through stronger policy, development and application of new science and technology, committed and trained staff, partnering with interested and dedicated groups and organizations such as the Nature Conservancy of Canada, Ducks Unlimited and Canadian Wildlife Service. We still rely on and appreciate the involvement and monitoring of concerned individuals and organizations such as the Ottawa Field-Naturalists' Club."

It seems that Ontario environmental law contains yet another serious loophole that needs to be plugged.

South March Highlands
In a press release just a few days before the municipal election, but welcome all the same, it was announced that the Region had acquired 556 acres of land in the South March Highlands at a price of $1.6 million. This is almost half of the total area of the highlands, and also adjoins the Trillium Woods. Steering this good move through Regional Council were Kanata Councillor Alex Munter, who has long been an advocate for the conservation of natural areas, and Regional Chair (now also Mayor-Elect) Bob Chiarelli, who declared his intention that, if elected, he would attach high importance to environmental issues. (See Mayoralty Debate, above). ¤

Britannia

Linda Jeays

All the spotted sandpipers
in the world come here
eventually:
a pebbly shore
is perfect for teetering
on the brink of happiness. ¤

Weaving a Fabric of Sound

Frederick W. Schueler

Wood Frog, from a painting by Aleta Karstad.

Rana sylvatica, the Wood Frog, Grenouille des bois, is a small tan, brown, or copper-coloured frog with a dark raccoon-like mask over the eyes, decorated with few (more in the north) black markings and (more frequently in the north) an optional – Mendelian dominant – pale racing stripe down the middle of the back. Wood Frogs are common predators of insects and gastropods on the forest floor in most of North America. They are restricted to moist areas in the Carolinian forest[1], but increasingly frequent forest edges, meadows, wetlands, and pond and stream edges to the north, becoming the characteristic frog of grassy banks and roadsides in the Boreal Forest.

The life history of Wood Frogs is the simplest natural history story ever told: On the first warm rainy night of spring, after reviving in the leaf litter (having

perhaps frozen solid over the winter), Wood Frogs come out of the woods. Males gather in quacking choruses in the sun-warmed shallows of predator-free spring-filled vernal ponds[2]. Each female follows a chorus to a pond, is mated, and contributes one cluster of a thousand or so black eggs to a blanket of egg masses laid down by 100-1000 neighbours. In a few nights it is over. The adult frogs return to the woods, and the sun warms the aggregated eggs until they hatch into hordes of wriggling black tadpoles. The tadpoles metamorphose in as few as 45 days and disperse into the adult habitat. They breed, in their turn, at an age of two years in the south, and after more years of slower growth in the north.

It is such a lovely story, but its simplicity is routinely compromised by violations of many of its assumptions. Spring and night come without fail, and the forest is usually present[3], but warmth, rain, ponds, and freedom from predators are so often absent or unpredictable, that every observer solemnly proclaims of every spring: *"This is the most bizarre year yet."* The longer one studies it, the more the deposition of Wood Frog eggs seems a triumph over impossible odds.

Warmth can come irregularly early in the spring, and frogs that have reached or started to the ponds may be detained by days or weeks of cold. The thin skin of a terrestrial frog has a limited ability to retain salts, and males kept in the ponds by cold may balloon edematously as they lose control of their water balance (personal notes: Louvicourt, Quebec, 1974). Once eggs are laid, ice on the ponds can freeze the surface layers of the egg masses, turning them grey and killing the embryos (Limerick Forest, 1993[4]). Clear warm days can suddenly plunge into icy clear nights, restricting all breeding to daylight hours if many females move (personal notes: East Franklin, Vermont, 1975). If few females move, a chorus may coalesce like a collapsing neutron star, numb with cold, around a single pair, too cold to protest, into the spherical mass of as many as 27 grappling males known as a 'frog ball' (personal notes: Mattawa, 1993).

Rain is a blessing, since amphibians can move freely only when their skin and surroundings are wet, but many springs are dry, and the trek to the breeding ponds must be made in a series of stages from puddle to puddle across woods, roads, and fields (personal notes: Limerick Forest, 1991). Often enough, pairs form in these staging puddles, and the female continues to the pond carrying the clasped male on her back (Brockville, 1981[5]). On the other hand, a cold front that delivers rain in which many frogs hurry towards the ponds can come with wind that must make choruses hard to hear, and it may bring numbing cold or a 20 cm blanket of snow (personal notes: 14 km SSE Cochrane, 1983).

Freedom from predators isn't constant from year to year. Populations of invertebrate predators — leeches, caddis and dragonfly larvae, diving beetles and aquatic bugs — build up when a pond remains flooded throughout the year, and beavers frequently raise water levels and allow tadpole-eating fish into previously isolated ponds. Newts and over-wintered tadpoles of aquatic *Rana* may feed on the eggs. Drought, freezing, or anoxia, on the other hand, can remove populations of predators. At Limerick Forest, the best Wood Frog ponds were mostly empty in the winter of 1999-2000, and frost penetrated 10 cm or more into the bottom mud, doubtless killing all aquatic predators. At the Casey Marsh, east of New Liskeard, on the other hand, the permanent Ducks Unlimited impoundment is the only water available for breeding Wood Frogs. Huge green and orange *Macrobdella* leeches swarmed over the egg masses in 2000, swallowing many of the eggs, and killing adults if they got the chance, while fish doubtless harried the tadpoles throughout their larval life.

Ponds are also uncertain. Falling water levels in a dry spell can leave eggs high and dry before they hatch (South Woodbury, Vermont, 1999[6]). Beavers can produce suitable breeding sites by sudden flooding (personal notes: Letts Corners, 1996), while a township road crew can just as suddenly strand eggs by breaking up a dam (personal notes: E of Killaloe, 2000). A single Snapping Turtle released in a pond in an isolated urban woodlot can decimate a population by feeding on breeding adults (North York[7]). Human owners can pollute a pond by piling hay around its margins (personal notes: Ottawa, 2000), or destroy or modify it in a diversity of other ways[8].

I began composing this essay on 30 April 2000, 10 km ESE Englehart, at a site where thousands of Wood Frogs were calling from bodies of water which had likely been very different a year previously. One series of choruses occupied 400 m of drainage ditch, newly water-filled by the activity of beavers, while two other choruses came from networks of broad ruts left in a clearcut by the caterpillar tracks of equipment used to haul logs to a sorting area.

Listening to these choruses, and to the smaller groups of males calling from other bodies of water, we could hear a population analysing multiple perils by turning the entire landscape into a data-processing system. Day and night, the air was filled with information about the location, temperature, and popularity of potential breeding sites. Each male calls initially from a site he has come across, proclaiming its merit by the number and quality of his calls, but always willing to move closer to a bigger chorus if it sounds like that chorus occupies a better site. Over a day or two of warmth the choruses coalesce into churning centres of activity, eggs are laid, and the choruses disperse, perhaps to reform elsewhere as conditions change on subsequent nights.

Because female Wood Frogs are winnowed by an additional year of mortality before they mature, a population generally contains an excess of males. Males that call from a pond which no females choose may not reproduce themselves, but they have at least contributed to the assessment of the landscape which directs the successful reproduction of others elsewhere. In general, if there's plenty of breeding sites, choruses coalesce and eggs are laid at a spacing of about 300-400 m between choruses. Sometimes the system breaks down — as in the El Niño year of 1983, when cold and warmth alternated so abruptly that eggs were laid in vain in flooded tire ruts all across Ontario — but in most years the vocal pond-assessment system delivers the eggs to fairly good ponds where they are fairly free from predators.

People are constantly changing things — lawns and selective harvests, and roads and shelter cuts, and municipal drains and plantations, and ditches and parking lots, and irrigation ponds and clear-cuts, and abandoned fields and tire ruts. Every spring the entire landscape is assessed, by a fabric of sound, for a purpose most of us haven't considered. Our changes, along with those of beavers, and of successional, climatic, geological, and other factors, are subjected to wide-ranging critical commentary, and accepted or found wanting in the matter of providing sun-warmed shallows in predator-free spring-filled bodies of water where Wood Frogs can lay their eggs.

[1] Though evidently extirpated by destruction and fragmentation of forests from Ontario SW of a line between Pinery and Rondeau parks (Weller & Green 1997, Checklist and current status of Canadian Amphibians, *in* Amphibians in Decline, *Herpetological Conservation* 1:325).

[2] Vernal ponds are those that are isolated from other water bodies and are filled in the spring but dry up later in the year. Because of this isolation they don't contain fish or other large predators, and are not only the optimal breeding sites for many amphibians, but also support a distinctive fauna of crustaceans, insects, and molluscs.

[3] Ken Storey, of Carleton University, who studies the biochemistry of Wood Frogs' ability to freeze and revive, has recently found an exception: Wood Frogs, at the Central Experimental Farm in Ottawa, with no forest to live in, hibernating on the dry bottom of the pond where they will breed in the spring.

[4] I've been following the fortunes of breeding Wood Frogs in the ponds and swamps of Limerick forest, 4 km E of Bishops Mills, Grenville Co., Ontario, since 1980.

[5] Schueler, Frederick W. and R. Michael Rankin 1982. Terrestrial amplexus in the Wood Frog, *Rana sylvatica*. *Canadian Field-Naturalist* 96:348-349.

[6] Thanks to Susan Sawyer, via the Vernal Pool e-mail list.

[7] Lawrence E. Licht, presentation at DAPCAN V, 1995.

[8] Thanks to Francis Cook and Ken Storey for examples of human impacts on ponds they were studying. ¤

Scavenger

Linda Jeays

The deer is frozen solid: stiff, angular, eyeless.
Its bloodstained throat, jutting rib cage, stick legs
are veiled by layers of drifting muslins
as a quiet blizzard blows.

Predator time prolongs itself into softer snow
and silhouettes: a jay-shadow flits by –
no screams on its brief reconnaissance;
a distant glimpse of fox races for the woods,
conjuring prey with every stride, brush held
in expectant balance.

Twilight begins to cover winter's silent aspens,
hiding place of hunger's teeth and claws,
aching anticipation destined for mean nourishment
at the rigid carcass.

But dusk's first scavenger is dressed for
feasting: black cap and bib neatly bobbing
into an empty eye socket – sprightly here
and there - balancing on bones,
finding scraps of flesh or fat, satisfied
amidst the mess of death. ¤

Calling All Birders for the Ontario Breeding Bird Atlas

Christine Hanrahan

A Juvenile Great Horned Owl. Drawing by Christina Lewis

The second Ontario Breeding Bird Atlas (OBBA) project is all fired up and ready to go, starting in the spring of 2001 and running through 2005. As many of you may recall, the first atlas ran from 1981 through 1985. Its results were published in 1987 as *The Atlas of the Breeding Birds of Ontario*.

Why another atlas?

A lot can happen in twenty years and, as we know, many species in Ontario have undergone changes in population and distribution. This second atlas, like the first, will focus on mapping the distribution of all breeding species in Ontario. However, there will be greater emphasis on collecting abundance information that will provide a more useful analysis of breeding bird species than simply listing their absence or presence. This second atlas will update the original and will add to the already extensive database of 400,000 files. New data will be used to expand our knowledge of breeding species and will help us better understand requirements for their conservation.

As with the first atlas, data gathered during this current atlas project will be used to determine distribution of species, status of rare species, and effects of habitat changes on breeding bird populations.

How you can help:
You can contribute to this project by volunteering in the Ottawa region. The precise boundaries have not yet been defined, but will most likely be the same as the last time around, which means that OBBA volunteers will be responsible for a huge area stretching roughly from Casselman in the east to Renfrew in the west, north to the Ottawa River and south to a line extending from Rockland through Russell, Limoges, Richmond to Flower Station. This area has 76 squares, each measuring 10km × 10km. Lots of land to cover! And lots of volunteers needed!!!

What you will do:
Ontario is divided into 10km × 10km squares based on the Universal Transverse Mercator grid system. The province is also divided into regions: the Ottawa section is No. 24. As an atlasser, you will be assigned (or can choose) any one or more of the 10km squares in our region. You will be required to put in a minimum of 20 hours over the five year period. (This is only 4 hours a year!!)

Essentially you will be birding, but with a bit of a twist. Rather than just listing all the species you see in your square, you will be looking for breeding evidence and abundance levels, the latter by using the point count method. Breeding evidence can be one of three levels, possible, probable or confirmed breeding. You will be given an instruction booklet and data cards that show how to determine the level of breeding. More detailed information will be available at a meeting on 22 April (see Coming Events).

Why we took part first time around —
and why you should consider doing so now!
Those who took part in the first atlas had such a great time that many underwent withdrawal symptoms at its conclusion. You've heard of old rockers who just keep on rocking? Well, there are old atlassers who've just gotta keep on atlassing. But this isn't really why Mike Cadman and company initiated this project. Honest! We found it exhilarating to discover and explore an area intimately, that we ultimately came to regard as "ours"! Woe to any birder who entered our territory unasked! And then there was the competitive aspect: who found the most species, the most breeding species, and the most unusual — or rare-species. At the end of each season all participants received an annual report for the Ottawa area. We also had a big get-together to exchange stories (consume various beverages), compare notes (consume beverages) and just

relax (by consuming said beverages) after an exciting summer in the field. In the early spring, another gathering was held to get us all geared up for the coming season. Volunteers can anticipate doing all of these things again.

Basic Requirements Needed to Participate in the Breeding Bird Atlas
You should be able to identify common species by sight and preferably by song. Teaming you up with more experienced birders may be a possibility (a good way to help polish your birding skills!). Teams of more experienced birders (the infamous "Square Bashers") can be sent in later in the project to look for the difficult to find species in your square, if you can find the common ones. And don't forget, you will not just be listing species, but will also be looking for breeding evidence too. For more information on the overall atlas project, check out the OBBA website at: *http://www.birdsontario.org* and click on "Ontario Breeding Bird Atlas".

Regional Coordinating Committee:
What was that about old atlassers.....? Once again, I seem to be Regional Coordinator, working with my old atlas committee pals, Paul "Retreat from the Cornbelt" Jones and Mark "Square Bashing" Gawn. A new addition to the team is Chris Harris, an experienced birder. If you would like more information about this upcoming project please contact me at 798-1620 or e-mail me at: *vanessa@magma.ca*.

Atlas Meeting:
Come along to our first atlas meeting and join Mike Cadman on Sunday, April 22 at the Fletcher Wildlife Garden Interpretive Centre from 1-4 p.m. for a workshop and training session on the atlas. You will learn how to conduct point counts, how to collect breeding evidence, how to use topographical maps, song identification, data entry and summary using the atlas web page, GPS units (preferred models, costs, applications), how to find significant species and colonial species, and how to fill in the data forms. Information packages will be available then. We look forward to seeing you there! ¤

Leitrim Albion Road Wetlands: Its Biodiversity and its Bio-blitz

Laurie Consaul, Albert Dugal & Ruben Boles

Four of the 24 participants in the Leitrim Bio-blitz: Jennie Schueler, Sheila Thomson, Harry Thomson, Fenja Brodo. Photo by Laurie Consaul.

June 19, 1999, 13:00h, 25°C, sunny, clear, light breeze, we make an afternoon trek into a little-studied area of the Leitrim wetland. It is the second afternoon of the Bio-blitz. We slog past the Northern Green Orchid (*Platanthera hyperborea*), Wood Horsetail (*Equisetum sylvaticim*), an abundance of ferns, mosses, and lichens, accompanied by a Red-eyed Vireo, and few mosquitoes. It is a hot and humid day, but slightly cooler in the damp woods.

The Leitrim wetland is ranked as having equal significance to any other wetland complex in the Ottawa-Carleton Regional Municipality. It is one of the most intensively studied areas in the Regional Municipality, thanks to the determined work of a few biologists during the late 1980's to mid 1990's. Study was begun (by AD) in response to the threat of development of this large wetland area. With the help of Martha Camfield, he inventoried, and continues to inventory, the site botanically. During 1989-1993, he led excursions to the site with other then-members of the Botany Division, Canadian Museum of Nature (CMN)(R.R. Ireland, L.M. Ley, P.Y. Wong, and P. Hamilton), Joyce Reddoch, and other local naturalists, who inventoried some of the mosses, lichens, and

algae of parts of the area and studied the ecology. Significant findings were reported by Dugal (1990, 1992, 1993). These articles included lists of regionally significant vascular plants, lichens and mosses, as well as birds [a compilation by Todd Norris, Dan Campbell and Richard Poulin (CMN)], fishes (collected by N. Alfonso of the CMN), amphibians and reptiles, mammals, butterflies and moths (by R. Layberry).

Dugal (1992) provided information about proposed subdivision development. He reviewed the fascinating history of the wetland through topographic maps, municipal maps, and airphotos back to the early 1800's. In 1994, Frank Pope, then President of the Ottawa Field-Naturalists' Club (OFNC) gave a depressing update of the political situation surrounding this area (Pope 1994). Since 1993, inventory work has continued slowly but surely; more biologists have visited this wetland. Dugal (1993) stated that a detailed study of the fauna is required to "provide a baseline to determine the long-term effects of adjacent development on the biodiversity of the wetlands. This poses a formidable task requiring many disciplines and, ideally, should be undertaken prior to any disruption of the natural habitat." To begin this formidable task, in June 1999 the wetland was chosen as the Ottawa site for the Great Canadian Bio-blitz.

The Bio-blitz, June 18-19, 1999

There were specific gaps in the biological knowledge of this wetland. Of the insects, only the Lepidoptera (butterflies and moths) had ever been inventoried. No lists of fungi, clams, or snails existed. Some areas within the wetland had never been inventoried for other organisms such as fish, mammals, vascular plants, mosses and lichens. Therefore, the experts that participated were informed whether they would be making a first-ever list of organisms, or contributing their expertise to a new area of the wetland. It was definitely not chosen for its ease of accessibility! Maps of the wetland were essential, and suggested routes were marked with flagging tape. Several members of the Ottawa Field-Naturalists Club, including members of the Macoun Club, and a number of other amateur naturalists from the Ottawa area, accompanied experts and provided their own lists of plants and animals. This was the first exposure for many of the twenty-four participants to this interesting part of Ontario. In addition, we set up our headquarters beside a dog-walking path, so many of the locals passed by us throughout the 24 hours, and we were able to inform them (and learn from them) as well. Headquarters was a trailer; also provided were a few tents, a portable toilet, tables, microscopes, books, lights, food, drink, and inquiring minds (all donated by participants in the Bio-blitz). Nobody got lost. A small group of us stayed overnight with the permission of the City of Gloucester, and many came out Friday and Saturday! The weather was superb, but the evening mosquitoes were a force to be reckoned with.

Vascular Plants

Five hundred species of vascular plants have now been recorded for the wetlands (Table 1). On the Bio-blitz, the 130 species recorded (indicated in the Area column of Table 1) included 12 new records (highlighted in bold in the table). These included five regionally significant plants: White-flowered Red Baneberry (*Actaea rubra* var. *neglecta*), Lily-of-the-Valley (*Convallaria majalis*), Hard Sheep Fescue (*Festuca trachyphylla*), Dwarf Jointed Rush (*Juncus articulatus*), and *Lolium perenne* var. *aristatum* which were found along with more common species: Yellow sedge (*Carex flava*), Queen Anne's-Lace (*Daucus carota*), Day-Lily (*Hemerocallus fulva*), St.-John's Wort (*Hypericum perforatum*), Slender Rush (*Juncus tenuis*), Bird's-Eye Trefoil (*Lotus corniculatus*), and European Mountain-Ash (*Sorbus aucuparia*). Since 1992, 17 new regionally significant plants (as of Gillett & White 1978) have been found here. In addition to the five found on the Bio-blitz and mentioned above, Wood Angelica (*Angelica sylvestris*), Blue-beech (*Carpinus carolinana*), Striped Coralroot (*Corallorhiza striata*), Dewdrop (*Dalibarda repens*), the Wood fern (*Dryopteris x uliginosa)*, Meadow fescue (*Festuca pratensis*), Rattlesnake Plantain (*Goodyera repens*), Common Reed Grass (*Phragmites australis*), which is recently becoming common, Yellow Snake-root (*Sanicula gregaria*), Marsh Sowthistle (*Sonchus palustris*), and Hobblebush (*Viburnum alnifolium*) were found prior to 1999. The uncommon, non-native Creeping Buttercup (*Ranunculus repens*) was found for the first time in June 2000, near the fen at the south-east side of this wetland.

The Marsh Sowthistle (*Sonchus palustris*) was first reported for Canada by Brunton & Crompton (1993) from the Leitrim wetlands along Albion Road. They found only 68 plants, and suggested that this species would be unlikely to constitute serious competition to the native vegetation. Examination of the population in 1999 and 2000 has shown that this species has spread along the ditches on both sides of Albion Road. It has not yet spread out of the ditches east or west into the wetland. Woodland Angelica (*Angelica sylvestris*), is another new species that Brunton (1997) first reported for Ontario from just north of the wetland. He reported that this species was weedy in other parts of its Canadian range, and must be monitored in case it spread invasively into the wetland proper, which indeed it has done. Its range currently extends south of the natural wetland north boundary, along Albion Road, and should continue to be monitored.

Unfortunately, the dominant shrub in most areas was the invasive Glossy Buckthorn (*Rhamnus frangula*). Countless thousands of seedlings of this non-native species pepper the forest floor. The Great Ice Storm of 1998 has increased light levels in many parts of the wetland, favouring the growth of this shrubby

plant, described by AD as the "grey curse." The European Buckthorn (*Rhamnus cathartica*), another invasive species, is also present, but in much lower numbers.

Cinnamon Ferns (Dryopteris cinnamomea), *near the south fen in Area 18, surrounding Laurie Consaul. Photo by Ruben Boles.*

The Vegetative Areas of the Wetland

The 500 vascular plant species found at Leitrim assemble into a mosaic of intertwined communities forming the wetland complex. Here, these are simplified into 29 vegetative areas (See Map). These are briefly described based on extensive field work by AD, aided by aerial photos. The 1999 Bio-blitz concentrated on Areas 2, 9, 12, and 13. Areas 12 and 13 were targeted most intensively for plants, mosses and lichens because they had been least studied to date. Areas 4, 5, 6, 7, 8, 17, (part of) 21, (part of) 22, 23, 24, 25, 26, 28, and the flowage are under immediate threat by development, and are marked with an asterisk (*).

1. A fairly complex area with several plant communities. Red Maple is the dominant tree species. In places, White Birch and Yellow Birch are plentiful. Some patches of conifers, i.e., hemlock, White Pine, Canada Yew cover acres of terrain. Much of the area was lumbered early this century.

2. Areas where cedar is the dominant tree. The trees in this area are quite variable in species composition and age, ranging from fairly young to stands of 150 years. Parts of this area still require additional botanical work.

3. A fairly complex area with the largest amount of virgin woodland. This area contains the largest number of very old trees — cedars up to 200 years, 250-year-old hemlocks, White Pines up to 275 years, Red Maple at least 150 years old. The forest floor is primarily moss covered and quite beautiful. The area is traversed by two streams, and there is also a Great

Blue Heron rookery, with nests perched in the huge White Pines. See Dugal (1990) for more information.

4.* Old field dominated by Reed Canary Grass with some willow and spiraea thickets.

5.* Old field (more complex than area 4) with a mix of marshy areas and shrubby thickets. It is quite wet in spots due to ditching activities by developer.

6.* Complex zone made up of at least 8 plant communities, including marshy areas, treed areas, alder thickets, and willow swales. It contains a rich herbaceous flora including Long-leaved Chickweed (*Stellaria longifolia*) (one of three localities in Ottawa-Carleton, Brunton 1998) and Downy Willow-herb (*Epilobium strictum*).

7.* Predominantly deciduous woodland dominated by poplars with some Red Ash, American Elm and Red Maple. Although part of area was cultivated, it was abandoned decades ago and has reverted to woodland. The uncultivated portion has been lumbered in the past. Some trees, i.e., Red Ash, Red Maple and American Elm, are up to 100 years old. There are a number of cottonwoods in the western part of this threatened area.

8.* Small, never cultivated area dominated by Red Ash with some American Elm and a few Red Maple. One group of older trees is 100 or more years in age. A large colony of Slashed Avens (*Geum laciniatum*) and an enormous 150+-year-old Red Ash are the most interesting features.

9. Mixed Woodland. Red Maple, cedar and White Birch are abundant. White Pine, Yellow Birch, Black Ash and White Spruce are also present. Rich wetland herbaceous flora, including numerous ferns, cover the forest floor. This area has never been cultivated, but has been lumbered. The oldest trees range between 70 and 90 years of age. Plants of interest include Wild Currant (*Ribes triste*), Clinton's Fern (*Dryopteris clintoniana*), Cristate Wood Fern (*Dryopteris cristata*), Spikenard (*Aralia racemosa*) and Whorled Wood Aster (*Aster acuminatus*).

10. Seepage area with a variety of trees and shrubs. Certain parts are quite wet and oozey - watch footing.

11. Primarily a deciduous woodland area that was previously cultivated but abandoned decades ago. Poplars are dominant in large sections of this area. Very little botanical work, primarily along western edge, has been done here.

12. Primarily a deciduous woodland area, varying in age and composition, with some conifers. Trembling Aspen and Balsam Poplar are abundant. Lesser amounts of Red Ash, American Elm, and Red Maple occur. Several large specimens of hybrid willow (*Salix xrubens*) were noted near Albion Road. This area contains a variety of plant communities and a fairly rich herbaceous flora including Long-leaved Chickweed (*Stellaria longifolia*) and Water Avens (*Geum rivale*). Additional botanical work is required in this complex area.

13. A hodgepodge of woodland communities. Cedar, Red Maple, White Birch and Trembling Aspen are plentiful. Several 150-year-old Cedars were noted. These are the oldest trees observed to date in the federal portion of the wetland. A rich herbaceous flora including many species of ferns, adorns the forest floor. More botanical work is required in this area.

14. Northern open fen. This is an extremely important area with disjunct species such as Swamp Valerian (*Valeriana uliginosa*), White Camas (*Zygadenus glauca*), Sterile Sedge

(*Carex sterilis*) and Arrow Grass (*Triglochin palustre*). A more complete description can be found in Dugal (1990).

15. Larch-cedar woodland. The western half contains a number of very old larch trees - up to 250 years old.

16. The "Island". A Trembling Aspen-White Birch-White Spruce woodland. Now an "upland" area due to peat wastage. There is a large population of Nodding Trillium (*Trillium cernuum*). This area was discussed more comprehensively in Dugal (1993, p. 127).

17.* Mixed woodland in an area bounded by the original Findlay Creek and the channelized Findlay Creek. Never cultivated and quite beautiful. Seven species of trees in the 100-year-old range, four species in the 150-year-old range. Cedars up to 175 years old and the remains of 200-year-old elms stand in a sea of ferns. Plants of interest include: Nodding Trillium, Cristate Wood Fern, Water Hemlock and Wild Currant. This area is threatened.

18. Southern open fen. An interesting area with bog and fen affinities.
19. Mature Trembling Aspen-Balsam Poplar-White Spruce-American Elm woodland. Clinton's Fern, Cristate Wood Fern, Nodding Trillium and Yellow Lady-slipper are some of the more noteworthy plants.

20. Willow scrub and trees - especially American Elm with some Red Ash and the occasional poplar.

21.* Mixed Woodland areas varying in age and composition and containing a good variety of plant communities. Some parts are threatened. Parts of these areas require additional botanical study.

22.* Primarily deciduous woodland areas varying in age and composition and containing a variety of plant communities. Some parts of this area are threatened.

23.* Areas dominated by alder.

24.* Area dominated by willow scrub and marshy areas.

25.* A complex area with trees and scrub. Most of area is threatened.

26.* A regenerating area with several plant communities.

27. An open fen lens with many interesting plants situated along a stream originating in area 3.

28.* A willow thicket.

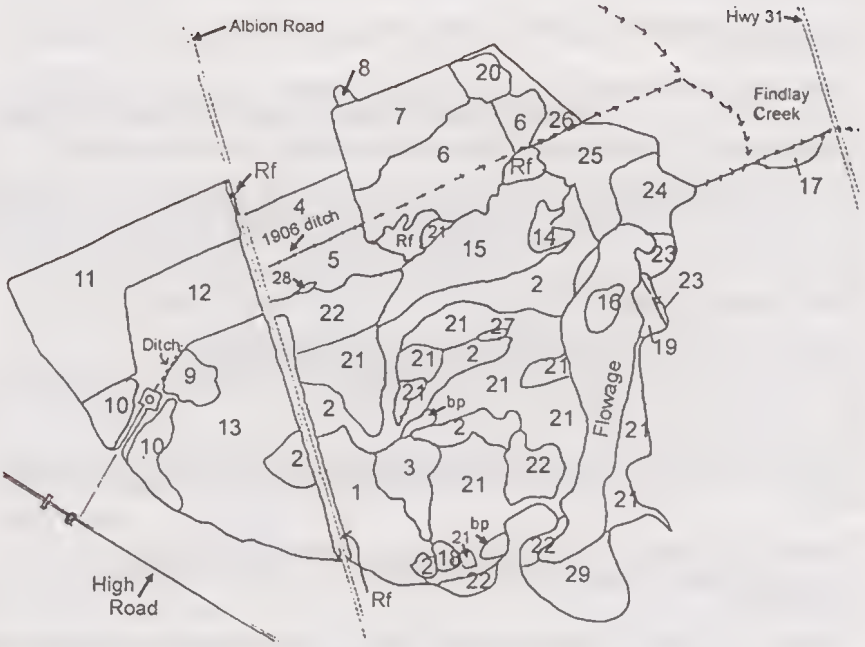
29. A complex regenerating area with treed, shrubby and marshy sections.

Flowage* — A mosaic of plant communities including cattail marshes, swords of Canada Bluejoint, large patches of Joe-Pye-Weed, willow swales, alder thickets, regenerating ash-elm stands, and a Silver Maple grove. This area, discussed more thoroughly in Dugal 1993, p. 125, contains at least 185 species of vascular plants, 42 of which are regionally significant. Most of this area is threatened.

bp = Beaver pond or previously beaver flooded area.

Rf = Zones in which *Rhamnus frangula* is the dominant shrub.

Note: The ditch on the western side of the Albion Road contains several interesting seepage areas.



Simplified vegetative area map of the Leitrim wetland complex. The areas are described in the text. Map created by A. Dugal.

Bryophytes

During the 1999 Bio-blitz 63 species of bryophytes were recorded (Table 2), 15 species new to the Leitrim list. These were counted by Linda Ley in only one day of surveying areas 12 and 13 in the wetland. This indicates the richness of this moist to wet habitat. There have now been 142 bryophytes recorded for the wetland: 104 mosses (including 8 *Sphagnum* mosses) and 38 liverworts. Nomenclature in Table 2 follows Anderson (1990) for the *Sphagnum* mosses, Anderson et al. (1990) for the other mosses, and Stotler and Crandall-Stotler (1977) for the liverworts.

Algae

In 1989, Paul Hamilton conducted a preliminary survey for algae (see Table 3). The survey was limited to the drainage ditches along the roadways adjoining the wetland, and did not extend into the interior. Fifty-two species were identified from this survey. Unfortunately, algae were not the focus of any further study at the Bio-blitz except for a common charophyte *Chara vulgaris* that was spotted and collected from the drainage ditch in Area 12.

Lichens, Mushrooms and Slime Molds

The lichens of Leitrim are generally species that grow on wood and bark and that can take advantage of the higher humidity in this area. There are a few soil lichens as well. During the 1999 Bio-blitz, Rob Lee and Barbara Gaertner collected 9 lichen species in area 12 (see Table 4). Twenty-seven species collected previously by P. Y. Wong (Canadian Museum of Nature) are also listed for a total of 36 lichen species. Nine species are uncommon lichens and 8 are rare (status based on Brodo, 1988) Among these rarer finds were *Rinodina excrescens* and *R. degeliana,* both new to the Ottawa region, and *Pachyphiale fagicola* which was new to Canada when collected. Common names for the lichens in Table 4 were kindly provided by Irwin Brodo. Lichen nomenclature in Table 4 follows Esslinger (1997). This has resulted in a number of name changes from earlier lichen lists including *Anisomeridium polypori* which appeared as *A. nyssaegenum* in Dugal (1990).

Fungi had not been inventoried before for the wetland. A preliminary survey by Scott Redhead during one morning of the Bio-blitz in two areas of the wetland yielded 13 species fruiting (Table 5). These species are relatively common in rich woods of eastern Ontario. A subsequent survey by Richard Aaron in the late summer of 2000 yielded a additional 14 species. Thus a total of 27 species have been found to date in the wetland. The higher taxonomy shown in Table 5 is based for the most part on Ainsworth *et al.* (1973).

FAUNA: INVERTEBRATES (EXCLUDING INSECTS)

Seven taxa of non-insect invertebrates were recorded on the Leitrim Bio-blitz, including three new taxa for the wetland. This brings the total to 12 (Table 6).

Gastropods

Several species of terrestrial gastropods have been identified from the wetland in recent years (Table 6). The slugs of the genus *Arion* are most common. During the Bio-blitz, several pitfall traps, baited with beer, and scattered in the mossy ground of the cedar woods, produced an abundance of slugs. These Wayne Grimm identified as belonging to the *Arion subfuscus* group. Although this is a common garden pest in eastern Canada and northeastern United States, this group of slugs has penetrated into native forest, even up to the boreal forest. Other European introductions, not identified to date from the wetlands, are usually restricted to disturbed habitats (W. Grimm, personal communication).

The common land snails found in the Leitrim area are known throughout the Great Lakes–St. Lawrence Basin (W. Grimm, personal communication). However, two extremely rare land snails have been found in the Leitrim area in the last few years.

Neohelix dentifera. This is one of the most exciting finds in the Leitrim fen area. An adult snail was found by Carolyn Seburn in 1997 in the shaded, unflooded lowland mixed forest, in a sunny spot among logs. Several nocturnal visits by F.W. Grimm and other intrepid "night owls" have failed to locate additional examples. This large land snail is at the northern periphery of its range in eastern Ontario. Previously this species was known from Maine to Georgia in cool Appalachian forests. In Ontario it was previously known from only four other localities: a single shell found on a farm near Casselman (in the 19th Century); Algonquin Park in the Nipissing District; Abinger Township, Lennox & Addington County (Oughton 1948); and from the Ragged Chute Gorge of the Mississippi River near Snow Road (W. Grimm, personal communication).

Adults of this species are over 2 cm in diameter, dull pale olive-tan, with a reflected white lip and a prominent tooth on the parietal wall of the shell. The umbilical region is closed by the reflected lip. Juveniles in the genus must be reared to maturity to be identified.

Carychium riparium. This is another rare species, found in the South Gloucester area near the Leitrim wetlands although not found in the wetlands proper. In 1998 Wayne Grimm found it on a 4 metre patch of damp soil near the base of a low limestone escarpment 4 km SSW of Leitrim. The immediate vicinity of the site was covered by dust from the quarry nearby. This species was previously reported by Hubricht (1985) from the lower Ohio valley, and found by Lewis (unpublished data) in sinkholes in southern Illinois and Indiana. Closer to home, the species was very recently found in a cave on the Eardley Escarpment in western Quebec in a survey undertaken by Dr. Bernard Lauriol's graduate students in Geography at the University of Ottawa (W. Grimm, personal communication), and in the Eastern Townships of Quebec in 2000 by Isabelle Picard. In Ontario, the only other record of this species has been Burnt Island Neck, Manitoulin Island, where a live specimen was found in 1995 by Grimm; in 1996 the site was revisited and found to be covered by gravel deposited when the road was widened. This tiny, white snail has not yet been recorded for the Leitrim wetlands, but might be expected there.

This snail is white, a bit over 1 mm in length and 0.2-0.3 mm in width, and is easily confused with widely distributed, common congeners: *C. exile* and *C. exiguum*. However, these taxa are easy to recognise when they are found together in stream drift.

The list of Leitrim aquatic gastropods commenced with the identification of two aquatic snails (Table 6). The Common Stagnicola (*Stagnicola elodes*) was one of the new species for the wetland found on the Bio-blitz. Sampling for this fauna has been very incomplete (F. Schueler, personal communication).

Mussels and Crayfish

A relatively rich unionid mussel fauna is found in Findlay Creek. Almost all of the species one would expect to find in a headwater stream were recorded for this area in 1997 and 1999 (Table 6, F. Schueler, personal communication). All four of these native species were found during the Bio-blitz. The Northern Crayfish (*Orconectes virilis*) was also found in 1997 and 1999, and is the usual stream species in Ontario east of the Canadian Shield. During the Bio-blitz in 1999, many adults were found under the rocks in Findlay Creek.

William Godsoe, Jennie Schueler, Fred Schueler examining insects caught during the Bio-blitz. Photo by Laurie Consaul.

INSECTS

To the partial list of butterflies and moths recorded in Dugal (1993), participants from the Leitrim Bio-blitz added 111 species for a new total of 141 insects (Table 7). Seven participants submitted lists which had broad taxonomic coverage (47 families were represented). The website *Nomina Insecta Nearactica* (see references) proved useful as a general reference, and for filling in gaps for species authorities for those species listed in Dugal (1993).

Twenty-four species of crane flies were collected and identified during the Bio-blitz. Crane flies include the large "mosquito hawks" that do not actually eat mosquitoes, and, although they look like mosquitoes, they don't bite humans. Most crane fly larvae live in water or moist soil, and feed on decaying

plant or animal material; some are predators. Adults may sip nectar and honeydew (Danks 1978).

Twenty-three species of Odonata (dragonflies and damselflies) adults and larvae were collected and/or identified during the Bio-blitz. Most of the species collected are common in Quebec and Ontario. The Eastern Red Damsel (*Amphiagrion saucium*) is found infrequently, because of its relatively small size. Ditches with some movement of water in them, such as those at the wetlands, are a good place to find this species. The Fragile Forktail (*Ischnura posita*) is also found infrequently because of its small size. Both of these species can be overlooked by the collector or observer because they fly very low, therefore are often concealed in vegetation. The Eastern Pondhawk (*Erythemis simplicicollis*) was exhibiting an interesting behaviour known and documented for a few species of dragonflies (R. Hutchinson, in litt.). A female was observed ovipositing a few feet from shore, and a male was flying over her, guarding her from other obtrusive males of the species, and also chasing away males of other species. The number of species collected in the two habitats in about three hours was a good indication of the species richness of the Leitrim wetlands. It is suggested that by returning at different times of the year and exploring more habitats in the wetland, one could confidently expect to record between 40-50 species of Odonata.

Thirty species of Hymenoptera and 29 species of Coleoptera were found at the Bio-blitz, with several participants contributing to the list (see Table 7). Yellow bowls filled with water were set out as traps near the drainage ditch in Area 12 to collect many of the species. Researchers from Agriculture Canada later provided their expertise with some of the species collected: Henri Goulet identified several of the Carabidae, and Lubomir Masner and John Huber identified selected families within the the Hymenoptera.

The total count of 141 species is actually a small fraction of the insect fauna here, and further trapping would doubtlessly produce many more. Surprisingly, we did not have any firm identifications on the mosquitoes (family Culicidae), which remain as part of the large insect diversity to be explored in this area in the future.

VERTEBRATES

Fish

Eight species of fish have been reported in the waterways of the wetland (Table 8). Three have been recorded in the relatively warm waters of the ditch leading from the radar tower, between areas 9 and 12, and all eight species have been recorded from the cooler running water in the creek crossing Albion Road, six during the Bio-blitz. The history of the drainage in this area was comprehen-

sively discussed by Dugal (1992). The Department of Fisheries and Oceans is interested in these fish as indicators of the water health in the area. It is imperative to keep the conduits open for migration of this fauna. Surveys of the effects of impending development are ongoing, and further investigations of the distribution of fish in the wetland by AD and M. Camfield are in progress.

Amphibians and Reptiles

Four amphibians were seen or heard during the Bio-blitz. The Tetraploid Grey Treefrog is a new record for the wetland, reported by Fred Schueler during the Bio-blitz, and noted earlier (1995) by F. Schueler and A. Karstad. This makes a total of six amphibians reported for the wetlands (Table 8). Strangely, no salamanders have been found in the wetland, in spite of the surveying done to date. Ontario Herpetofaunal Summary (OHS), kindly provided by Mike Oldham of the National Heritage Information Centre, produced no historical records of salamanders for the Leitrim wetlands proper, although there were records of the Jefferson Salamander Complex, Red-backed Salamander, and Two-lined Salamander from the NTS 10 km square in which the wetland is included (the coordinates for these particular records were accurate only to the 10 km square). Two reptile species have been reported from the wetland (Dugal 1993). They were also recorded during visits to the wetland by Fred Schueler and Aleta Karstad in 1997 (personal communication).

Mammals and Birds

This wetland, and the surrounding countryside, are well populated with breeding birds and mammals (Table 8). Fifteen species of mammals have been recorded for the area. Muskrats (*Ondatra zibethicus*) feed on aquatic vegetation, but also clams, frogs, and fish on occasion (Burt & Grossenheider 1980). Mink (*Mustela vison*) feed on small mammals as well as birds, bird eggs, frogs, fish and crayfish, whereas River Otters (*Lontra canadensis*) subsist almost totally on small aquatic vertebrates and invertebrates. Otter tracks were seen at Findlay Creek during the Bio-blitz, and David Gill reported a live River Otter later in the year, in the same location. Otters had not been reported in the mammal list for the wetland in 1993. Its presence may reflect an increased health in the water systems of the wetland.

Ninety species of resident birds recorded by Todd Norris, Dan Campbell, Richard Poulin and other naturalists were documented for the wetland itself in Dugal (1993), and four other species were listed only from the adjacent uplands. Forty species were recorded June 18-19, 1999 on the Bio-blitz, including Northern Waterthrush (*Seiurus novaboracensis*), which most frequently lives in wet woodland habitats. Two species recorded on the Bio-blitz were new records for the wetland, Mourning Dove (*Zenaida macroura*) and Baltimore

Oriole (*Icterus galbula*), bringing the total for the wetland itself to 92. On the Bio-blitz, Gray Partridge (*Perdix perdix*) was a new species for the upland area. The endangered species Loggerhead Shrike (*Lanius ludovicianus*) and Henslow's Sparrow (*Ammodramus henslowii*) (COSEWIC 2000), have not been seen in this area for many years. However, some of the habitat surrounding the wetlands still has potential for these species.

Current Threats

One year later, June 18, 2000, 8:45 am, overcast, ~ 12°C, with an east wind predicting rain. We don our boots and tread off through Cinnamon Ferns, Royal Ferns, Oak Ferns, Wood Ferns and Horsetails, past a beautiful little *Mnium* moss, all surrounded by large cedar trees and Red Maples. An irritated Wood Thrush protests our presence with loud chips, and then serenades us from a distance with its bell-like trills. The rain starts pelting down just as we reach the south fen. A few metres off cars scream north on Albion Road... but we seem far away, safe in the Leitrim wetland. However, the question remains: are we and the other 1032 organisms (counted to date) that live here safe?

The health of the wetland is still under question with reference to possible contaminant leakage. In early June, 2000, Regional Council approved the Leitrim Early Servicing Agreement which advances 6 million dollars for water and sewers to service the proposed Leitrim Village, about 2 years ahead of schedule. The proposed housing developments would obliterate one-quarter of the wetland. Recent expert reviews of the proposed developments suggest that the water levels will be lowered throughout most of the wetland, resulting in severe negative impacts. These developments are a matter for great concern, and will be the topic of a future article.

Conclusions on the Bio-blitz

We found that the Bio-blitz did in fact begin the heretofore formidable task of further inventory required to begin the study of future impacts of development on this area. In almost every group of organisms at least one new species was recorded, and 396 species were listed on the Bio-blitz, in spite of the difficult access to this area. One hunded and fifty-eight new taxa were recorded for the wetland, most of them being invertebrates. Dawn forays, night trapping, and just hunting around in the forest floor would doubtlessly yield more species. Areas chosen for most Bio-blitzes are more accessible to the public and have great benefits for public awareness and education (see, for example Vitols & Hamilton 1998). A Bio-blitz such as this one, with a smaller number of participants and more specific goals in mind, had its own strengths, and, although not intended to replace scientific population analyses, proved to be an excellent tool for starting or continuing biodiversity studies.

Acknowledgements

Many thanks to all who have inventoried (and continue to inventory) at Leitrim. We thank Wayne Grimm and Carolyn Seburn for sharing their information on the rare land snails. Thanks also to Fred Schueler, Aleta Karstad and Ray Hutchinson for very generously sharing their field observations as well as their taxonomic lists. Thanks to Linda Ley for discussing the mosses of the area, to Scott Redhead for supplemental information to the fungus list, to Irwin and Fenja Brodo for scrutinizing the lichen and insect lists, respectively, François Genier for advice on insect pitfall traps, and Mike Oldham for providing historical herpetological records. The following people and organizations made our Bio-blitz just that little more pleasant: Earl and Marguerite at Arrow Mobile Services, Betty at Tim Horton's in Gloucester, and Dan Garvey at the City of Gloucester. Rita Morbia delivered the final tent to the "camp" just in time. Fred Schueler, Aleta Karstad and Jennie Schueler of the Biological Checklist of the Kemptville Creek Drainage Basin are thanked for providing their trailer and one of the tents for the "permanent HQ" on High Road. Other participants in the Bio-blitz: Joseph, Sarah & Julian Potvin, Diane Kitching, Paule Ouellet, Diana Barnes and Eric Maw, are thanked for helping to find organisms and identify them in the field, although their names are not associated with specific lists. We are sure that additional species will continue to be identified and added to the list.

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by Aleta Karstad, from *Wild Seasons Daybook*

Table 1. Plants at the Leitrim Albion Road wetlands. The primary list was compiled by AD with help from Martha Camfield. Species that are new since 1992 are highlighted in bold. The information on the Bio-blitz sitings in the vegetative areas (Area) of the map are explained in the footnote. Vouchers were collected by the authors. Status (ST) in the Ottawa District (50 km circle from peace tower) from Gillett and White (1978) (normal type; status of species not in G & W assessed by the authors with reference to new available information) and in Ottawa-Carleton area only from Brunton (1998) (italics), E=extirpated, R=rare, U=Uncommon, LC=Locally common, S=Sparse, S2=Nature Conservancy rarity code. CT indicates collector information.

Taxon	Common name	ST	Area	CT
LYCOPODIACEAE, CLUB-MOSS FAMILY, LYCOPODIACÉES				
Lycopodium annotinum L.	Stiff or Bristly Clubmoss; Lycopode innovant	U	3	c
L. clavatum L.	Staghorn Clubmoss; Courants verts		3	c
L. flabelliforme (Fern.) Blanch.	Fan-shaped Clubmoss; Courants verts			
L. lucidulum Michx.	Shining Clubmoss; Lycopode brillant			
L. obscurum L. var. *obscurum*	Ground-pine; Petit pin	S,*S*		
EQUISETACEAE, HORSETAIL FAMILY, ÉQUISÉTACÉES				
Equisetum arvense L.	Field Horsetail; Prêle des champs			
E. fluviatile L.	Water Horsetail; Prêle fluviatile		12	a
E. hyemale L.	Scouring-rush; Prêle d'hiver			
E. scirpoides Michx.	Dwarf Scouring-rush; Prêle faux-scirpe			
E. sylvaticum L.	Wood Horsetail; Prêle des bois		13	c
E. variegatum Schleich.	Variegated Horsetail; Prêle panachée	U	3	c
OPHIOGLOSSACEAE, ADDER'S-TONGUE FAMILY, OPHIOGLOSSACÉES				
Botrychium simplex E. Hitchc.	Dwarf Grape Fern; Botryche simple	U		
B. virginianum (L.) Sw.	Rattlesnake Fern; Botryche de Virginie			
OSMUNDACEAE, FLOWERING FERN FAMILY, OSMONDACÉES				
Osmunda cinnamomea L.	Cinnamon Fern; Osmonde cannelle		3, 12, 13	c
O. claytoniana L.	Interrupted Fern; Osmonde de Clayton		3, 13	c
O. regalis L.	Royal Fern; Osmonde royale		3, 12, 13	c
DRYOPTERIDACEAE, WOOD FERN FAMILY, DRYOPTÉRIDACÉES				
Athyrium filix-femina (L.) Roth	Lady Fern; Fougère femelle		3	c
A. thelypterioides (Michx.) Desv.	Silvery Spleenwort; Athyrie argentée	U		
Cystopteris bulbifera (L.) Bernh.	Bulblet Fern; Cystoptéride bulbifère		3	c
C. fragilis (L.) Bernh.	Fragile Fern; Cystoptéride fragile			
Dryopteris x *boottii* (Tuck.) Underw.	Boott's Wood Fern; Dryoptéride de Boott	S	13	b
D. carthusiana (Vill.) H.P. Fuchs (*D. spinulosa*)	Spinulose Wood Fern; Dryoptéride spinuleuse		3, 13	c
D. clintoniana (D.C. Eat.) Dowell	Clinton's Fern; Dryoptéride de Clinton	S	3, 13	c
D. cristata (L.) A. Gray	Crested Wood Fern; Dryoptéride accrêtée	U	3, 13	c
D. x *dowellii* Wherry		S		
D. goldiana (Hook.) A. Gray	Goldie's Fern; Dryoptéride de Goldie	S,*S*		
D. intermedia (Muhl. ex Willd.) A. Gray	Evergreen Wood Fern; Dryoptéride intermédiaire		3	c
D. marginalis (L.) Gray	Marginal Shield Fern; Dryoptéride marginale			
D. x *triploidea* Wherry		U		
***D.* x *uliginosa* (A.Br.) Druce**		**R**		
Gymnocarpium dryopteris (L.) Newm.	Oak Fern; Fougère du chêne		3, 13	c
Gymnocarpium robertianum (Hoffm.) Newm.	Oak Fern; Fougère du chêne	S2, R,E?		

Table 1, cont'd. Taxon	Common name	ST	Area	CT
Matteucia struthiopteris (L.) Todaro	Ostrich Fern; Ptérétide noduleuse		12	c
Onoclea sensibilis L.	Sensitive Fern; Onoclée sensible		3, 12,13	c
POLYPODIACEAE, POLYPODY FAMILY, POLYPODIACÉES				
Polypodium virginianum L.	Rock Polypody; Polypode de Virginie, Tripe de roche			
PTERIDACEAE, MAIDENHAIR FERN FAMILY, PTÉRIDACÉES				
Adiantum pedatum L.	Maidenhair Fern; Capillaire	S	13	c
Pteridium aquilinum (L.) Kuhn var. *latiusculum* (Desv.) Underw.	Bracken, Brake; Grande fougère		T	c
THELYPTERIDACEAE, MARSH FERN FAMILY				
Thelypteris palustris (Salisb.) Schott (incl. var. *pubescens* (Lawson) Fern.)	Marsh Fern; Thélyptéride des marais		3, 13	c
T. phegopteris (L.) Slosson	Northern Beech Fern; Thélyptéride du Hêtre		3	c
TAXACEAE, YEW FAMILY, TAXACÉES				
Taxus canadensis Marshall	Dwarf or Canada Yew; Buis de sapin	U	3, 13	c
PINACEAE, PINE FAMILY, PINACÉES				
Abies balsamea (L.) Mill.	Balsam Fir; Sapin baumier		3, 13	c
Larix laricina (DuRoi) K. Koch	Larch, Tamarack; Mélèze, Tamarac			
Picea glauca (Moench) Voss	White Spruce; Épinette blanche		13	c
P. mariana (Mill.) BSP.	Black Spruce; Épinette noire	LC		
Pinus strobus L.	White Pine; Pin blanc		3	c
**P. sylvestris* L.	Scot's Pine; Pin d'Écosse	S	13	c
Tsuga canadensis (L.) Carr.	Hemlock; Tsuga du Canada, Pruche		3	c
CUPRESSACEAE, CYPRESS FAMILY, CUPRESSACÉES				
Thuja occidentalis L.	Eastern White Cedar; Cèdre blanc		3, 13	c
TYPHACEAE, CATTAIL FAMILY, TYPHACÉES				
Typha angustifolia L.	Narrow-leaved Cattail; Quenouille		T	c
T. latifolia L.	Cattail; Massette		T	c
SPARGANIACEAE, BUR-REED FAMILY, SPARGANIACÉES				
S. chlorocarpum Rydb.	Stemless or Green Bur-reed; Rubanier à fruits verts	S		
POTAMOGETONACEAE, PONDWEED FAMILY, POTAMOGÉTONACÉES				
Potamogeton epihydrus Raf.	Emersed Pondweed; Potamot émergé	U		
P. foliosus Raf.	Leafy Pondweed; Potamot feuillé	S	12	a
P. nodosus Poir.	Knotted Pondweed; Potamot noueux	S		
NAJADACEAE, NAIAD FAMILY, NAIADACÉES				
Najas flexilis (Willd.) Rostk. & Schmidt	Naiad; Naias souple	U		
JUNCAGINACEAE, ARROW GRASS FAMILY, JUNCAGINACÉES				
Triglochin palustre L.	Arrow-grass; Herbe soelting	R,*R*		
ALISMATACEAE, WATER-PLANTAIN FAMILY, ALISMATACÉES				
Alisma triviale Pursh	Water-plantain; Plantain d'eau			
Sagittaria latifolia Willd.	Broad-leaved Arrowhead; Sagittaire latifoliée			
HYDROCHARITACEAE, FROG'S-BIT FAMILY, HYDROCHARITACÉES				
**Hydrocharis morsus-ranae* L.	Frog's-bit; Grenouillette	S/Esc.		
POACEAE, GRASS FAMILY, POACÉES				
Agrostis gigantea Roth	Redtop; Tremme, Traînasse			
A. hyemalis (Walter) BSP.	Ticklegrass	U		

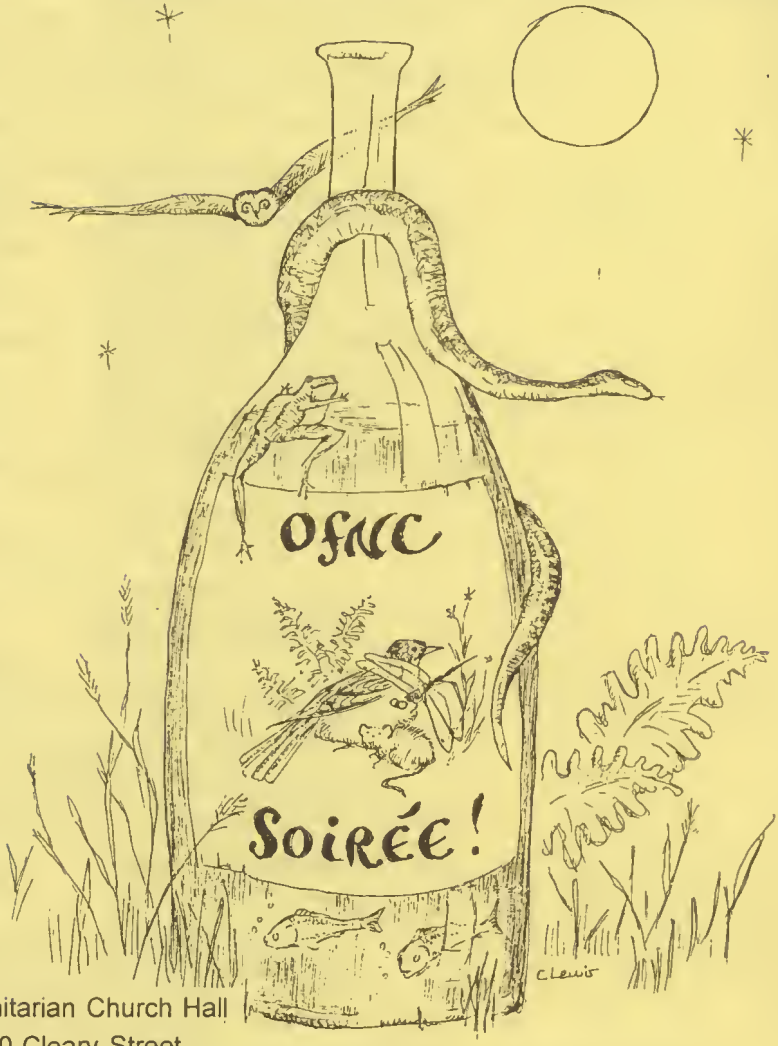
Table 1, cont'd. Taxon	Common name	ST	Area	CT
A. perennans (Wall.) Tuckerm.	Autumn Bent Grass; Agrostis pérennant			
A. stolonifera L.	Creeping bent			
Alopecarus aequalis Sobol.	Short-awn Foxtail; Vulpin à courtes arêtes	U		
Brachyelytrum erectum (Schreb.) Beauv.	Bearded Shorthusk; Brachyélytre			
Bromus ciliatus L.	Fringed Brome Grass; Brome cilié	U		
* *B. inermis* Leyss.	Awnless Brome Grass; Brome de Hongrie		T	c
Calamagrostis canadensis (Michx.) Nutt.	Canada Bluejoint; Foin Bleu		12	ab
Cinna latifolia (Trev.) Griseb.	Drooping Woodreed; Cinna à larges feuilles	S		
Echinocloa maricata (Beauv.) Fern.	Sharp-pointed Barnyard Grass; Echinochloa piquant	*R*		
Elymus virginicus L.	Wild Rye; Elyme de Virginie			
*** *Festuca trachyphylla* (Hackel) Krajina**	**Hard Sheep Fescue; Fétuque**	**S**	**12**	**d**
*** *F. pratensis* Huds.**	**Meadow Fescue; Grande queue de rat**	**S**	**12**	**d**
Glyceria canadensis (Michx.) Trin.	Canada Manna Grass; Glycérie du Canada	U		
G. grandis Wats.	American Manna Grass; Glycérie géante			
G. striata (Lam.) Hitchc.	Fowl Manna Grass; Glycérie striée		T, 12, 13	ab
Hordeum jubatum L.	Fox-tail Barley; Orge sauvage			
Leersia oryzoides (L.) Sw.	Rice Cut Grass; Aspérelle		13	c
*** *Lolium perenne* var. *aristatum* Willd.**	**Perennial rye-grass; Ivraie vivace**	**R**	**12**	**d**
Muhlenbergia glomerata (Willd.) Trin.	Agglomerated Muhlenbergia; Muhlenbergie agglomérée	S		
M. mexicana (L.) Trin.	Mexican Muhlenbergia; Muhlenbergie mexicaine	U		
M. mexicana (L.) Trin. var. *filiformis* (Willd.) Scribn.	Mexican Muhlenbergia; Muhlenbergie mexicaine			
Oryzopsis asperifolia Michx.	Rice Grass; Oryzopsis à feuilles rudes			
Panicum capillare L.	Common Witch Grass; Panic capillaire			
Phalaris arundinacea L.	Reed Canary Grass; Roseau			
Phleum pratense L.	Timothy; Phléole des près			
***Phragmites australis* (Cav.) Steudel**	**Common Reed Grass; Jonc à balai**	**S/inv**	**T**	**c**
Poa palustris L.	Swamp Meadow Grass; Pâturin palustre		12	b
P. pratensis L.	Kentucky Blue Grass; Pâturin des prés			
* *Setaria italica* (L.) Beauv.	Foxtail			
**S. viridis* (L.) Beauv.	Green Foxtail; Mil sauvage, Milliasse			
Sphenopholis intermedia Rydb.	Slender Wedge Grass; Sphénopholis intermédiaire	S		
CYPERACEAE, SEDGE FAMILY, CYPÉRACÉES				
C. arctata Boott	Compressed Sedge; Carex comprimé			
C. aurea Nutt.	Golden Sedge; Carex doré	U		
C. bebbii Olney	Bebb's Sedge; Carex de Bebb		12	a
C. blanda Dewey	Smooth Sedge; Carex lisse	S		
C. bromoides Schkuhr	Brome-like Sedge; Carex faux-brome			
C. communis Bailey	Common Sedge; Carex commun			
C. comosa Boott	Bristly Sedge; Carex à toupet	U		
C. crinita Lam.	Fringed Sedge; Carex crépu		12	c
C. cristatella Britton	Crested Sedge; Carex accrêté			
C. debilis Michx.	Weak Sedge; Carex faible	S,*S*		

Table 1, cont'd. Taxon	Common name	ST	Area	CT
C. deweyana Schwein.	Dewey's Sedge; Carex de Dewey			
C. disperma Dewey	Two-seeded Sedge; Carex disperme	U		
C. *flava* L.	**Yellow sedge; Carex jaune**		**12**	**bd**
C. gracillima Schwein.	Filiform Sedge; Carex filiforme			
C. granularis Muhl.ex Schkuhr	Granular Sedge; Carex granuleux	U		
C. gynocrates Wormsk.	Ridged Sedge; Carex à côtes	R,*R*		
C. *hystericina* Muhl. ex. Willd.	Porcupine Sedge; Carex Porc-épic	U	12	a
C. interior Bailey	Inland Sedge; Carex continental			
C. intumescens Rudge	Bladder Sedge; Carex gonflé		13	c
C. lacustris Willd.	Lake Sedge; Carex lacustre			
C. leptalea Wahl.	Bristle-stalked Sedge; Carex à tiges grêles			
C. leptonervia Fern.	Finely-nerved Sedge; Carex leptonervé	U		
C. limosa L.	Mud Sedge; Carex des bourbiers	R,*R*		
C. livida (Wahl.) Willd.	Lead-coloured Sedge; Carex livide	R,*R*		
C. lupulina Muhl. ex Willd.	Hop Sedge; Carex houblon			
C. pallescens L.	Pale Sedge; Carex pâle			
C. paupercula Michx.	Stunted Sedge; Carex chétif	S		
C. pedunculata Muhl.	Peduncled Sedge; Carex pédonculé			
C. peckii Howe	Peck's Sedge; Carex de Peck			
C. prairea Dewey	Prairie Sedge; Carex de la Prairie	R,*R*		
C. projecta Mack.	Spreading Sedge; Carex à bec étalé			
C. pseudo-cyperus L.	Cyperus-like Sedge; Carex faux-souchet		12	a
C. retrorsa Schwein.	Retrorse Sedge; Carex réfléchi			
C. rosea Schkuhr (incl. *C. radiata* (Wahl.) Dewey and *C. convoluta* Mack.)	Stellate Sedge; Carex en rosace			
C. scoparia Schkuhr	Broom Sedge; Carex à balais			
C. sterilis Willd.	Sterile Sedge	R,*R*	13	c
C. stipata Muhl. ex Willd.	Awl-fruited Sedge; Carex stipité		12	a,c
C. stricta Lam.	Stiff Sedge; Carex raide	U,*S*		
C. sychnocephala Carey	Compact Sedge; Carex compact	S,*S*		
C. tenera Dewey	Slender Sedge; Carex mince			
C. tribuloides Wahl.	Blunt-broom Sedge; Carex tribuloide			
C. trisperma Dewey	Three-fruited Sedge; Carex trisperme	S		
C. tuckermanii Boott	Tuckerman's Sedge; Carex de Tuckerman			
C. vulpinoidea Michx.	Fox Sedge; Carex faux-vulpin	U		
Cladium mariscoides (Muhl.) Torr.	Twig-rush; Cladium faux-mariscus	S,*R*		
Cyperus rivularis Kunth	River Cyperus; Souchet des rivières			
C. strigosus L.	Strigose Cyperus; Souchet hispide	S		
Eleocharis elliptica Kunth	Elliptic Spike-rush; Eléocharide elliptique	R,*S*		
E. erythropoda Steudl	Red-stemmed Spike-rush; Eléocharide à tiges rouges	U		
E. obtusa (Willd.) Schultes	Blunt Spike-rush; Eléocharide obtuse			
Eriophorum viridi-carinatum (Engelm.) Fern.	Green Cotton-grass; Linaigrette verte	S,*S*		
Rhynchospora alba (L.) Vahl	White Beak-rush; Rhynchospore blanc	S,*R*		
Scirpus atrovirens Willd.	Blackish Bulrush; Scirpe noirâtre		12	c
S. cyperinus (L.) Kunth	Wool-grass; Scirpe souchet			
S. hudsonianus (Michx.) Fern.	Hudsonian Club-rush; Scirpe hudsonien	S		
S. *microcarpus* Presl (*S. rubrotinctus* Fern.)	Red-sheathed Bulrush; Rouche	U		
S. pedicellatus Fern.	Pedicellate Wool-grass; Scirpe pédicellé	R,*R*		

Table 1, cont'd. Taxon	Common name	ST	Area	CT
S. validus Vahl	Strong Bulrush; Scirpe vigoureux			
ARACEAE, ARUM FAMILY, ARACÉES				
Arisaema triphyllum (L.) Schott	Jack-in-the-pulpit; Petit prêcheur		3, 12, 13	c
LEMNACEAE, DUCKWEED FAMILY, LEMNACÉES				
Lemna minor L.	Lesser Duckweed; Lentille d'eau, Merde de grenouille		T, 12	c
Wolffia sp.	Watermeal			
JUNCACEAE, RUSH FAMILY, JONCACÉES				
***Juncus articulatus* L.**	**Jointed Rush; Jonc articulé**	**R,*S***	**12**	**bd**
J. bufonius L.	Toad Rush; Jonc des crapauds			
J. canadensis La Harpe	Canada Rush; Jonc du Canada	S,*S*		
J. dudleyi Wieg.	Dudley's Rush; Jonc de Dudley			
J. effusus L.	Common Rush; Jonc épars		12	a
J. nodosus L.	Knotted Rush; Jonc noueux			
***J. tenuis* Willd.**	**Slender Rush; Jonc ténu**		**12**	**a**
LILIACEAE, LILY FAMILY, LILIACÉES				
Clintonia borealis (Ait.) Raf.	Bluebead-lily, Poisonberry; Lis sauvage de la vallée		3	c
****Convallaria majalis* L.**	**Lily-of-the-valley; Muguet**		**12**	**c**
**** Hemerocallus fulva* L.**	**Day-lily; Hémérocalle fauve**			
Maianthemum canadense Desf.	Wild Lily-of-the-valley; Petit Muguet			
Medeola virginiana L.	Indian Cucumber-root; Concombre sauvage	U	3	c
Polygonatum pubescens (Willd.) Pursh	Hairy Solomon's Seal; Sceau-de-Salomon pubescent			
Smilacina racemosa (L.) Desf.	False Solomon's Seal, Job's-tears; Raisinette			
S. trifolia (L.) Desf.	Three-leaved False Solomon's Seal; Smilacine trifoliée	LC		
Streptopus amplexifolius (L.) DC.	Twistedstalk; Streptope amplexicaule	R,*R*	3	c
S. roseus Michx.	Rose Twistedstalk; Streptope rose			
Trillium cernuum L.	Nodding Trillium, Sugarberry; Trille penché	S	3	c
T. erectum L.	Red Trillium; Trille dressé		13	c
T. grandiflorum (Michx.) Salisb.	White Trillium; Pâquerette			
T. undulatum Willd.	Painted Trillium; Trille ondulé			
Zigadenus glaucus (Nutt.) Nutt.	White Camas	*R*		
IRIDACEAE, IRIS FAMILY, IRIDACÉES				
Iris versicolor L.	Blue Flag; Iris versicolore, Clajeux			
ORCHIDACEAE, ORCHID FAMILY, ORCHIDACÉES				
Calopogon tuberosus (L.) Britton	Grass-pink; Calopogon gracieux	LC,*R*		
***Corallorhiza striata* Lindl.**	**Striped Coralroot; Corallorhize striée**	**S,*R***		
C. trifida Châtel.	Northern Coralroot; Corallorhize trifide			
Cypripedium acaule Ait.	Stemless Lady-slipper; Sabot de la Vierge			
C. calceolus L.	Yellow Lady-slipper; Sabot jaune	U		
C. reginae Walt.	Showy Lady-slipper; Cypripède royal	LC	3	c
**Epipactis helleborine* (L.) Crantz	Helleborine; Helléborine		3, 13	c
***Goodyera repens* (L.) R. Br.**	**Dwarf Rattlesnake-plantain; Goodyérie rampante**	**S,*R***		
Liparis loeselii (L.) Rich.	Twayblade; Liparis de Loesel			
Malaxis monophylla (L.) Sw. (*M. brachypoda* (Gray) Fern.)	White Adder's-mouth; Malaxis à pédicelles courts	S		
M. unifolia Michx.	Green Adder's-mouth; Malaxis unifolié	U		

Table 1, cont'd. Taxon	Common name	ST	Area	CT
Platanthera hyperborea (L.) Lindl.	Northern Green Orchid; Habénaire hyperboréale		13	c
P. obtusata (Banks ex Pursh) Lindl.	Blunt-leaved Orchid; Habénaire à feuille obtuse	S,*R*		
Pogonia ophioglossoides (L.) Juss.	Rose Pogonia, Snakemouth; Pogonie langue-de-serpent	LC,*R*		
Spiranthes romanzoffiana Cham.	Hooded Ladies'-tresses; Réséda sauvage	S,*R*		
SALICACEAE, WILLOW FAMILY, SALICACÉES				
Populus balsamifera L.	Balsam Poplar; Peuplier noir		12	c
P. deltoides Marshall	Cottonwood; Peuplier à feuilles deltoides	U	T, 12	c
P. grandidentata Michx.	Large-toothed Aspen; Tremble			
P. tremuloides Michx.	Trembling or Quaking Aspen; Peuplier blanc, Tremble			
**Salix alba* L.	White Willow; Saule blanc	U		
S. amygdaloides Anderss.	Peach-leaf Willow; Saule à feuilles de Pêcher	U		
S. bebbiana Sarg.	Bebb's Willow; Petit Minou			
S. candida Flügge	Hoary Willow; Saule tomenteux	S,*S*		
S. discolor Muhl.	Pussy Willow; Chaton, Petit Minou		12	b
S. eriocephala Michx. (syn. *S. rigida* Muhl.)	Cordate or Heart-leafed Willow; Saule rigide	U		
S. lucida Muhl.	Shining Willow; Saule brillant			
* *S. myrsinifolia* Salisb. (*S. nigricans* Sm.)		S		
* *S. nigra* Marshall	BlackWillow; Saule noir	U		
S. petiolaris Sm.	Slender Willow; Saule pétiolé			
* *S. purpurea* L.	Basket Willow; Saule des vanniers	R		
*** S. x *rubens* Schrank**			**12**	**c**
S. serissima (Bailey) Fern.	Autumn Willow; Saule très tardif	U,*R*		
JUGLANDACEAE, WALNUT FAMILY, JUGLANDACÉES				
Juglans cinerea L.	Butternut; Noyer cendré			
BETULACEAE, BIRCH FAMILY, BETULACÉES				
Alnus rugosa (Du Roi) Spreng.	Speckled Alder; Aulne blanc			
Betula alleghaniensis Britton (*B. lutea* Michx.)	Yellow Birch; Bouleau jaune, Merisier		3, 13	c
B. papyrifera Marshall	Paper Birch; Bouleau à papier		T, 13	c
B. populifolia Marshall	Gray Birch; Bouleau gris	U	12	b
B. x *sandbergii*	hybrid B. pumila X B. papyrifera	R,*R*		
***Carpinus caroliniana* Walt.**	**Blue-beech; Charme bleu**	**U**		
Corylus cornuta Marshall	Beaked Hazelnut; Noisetier		13	c
FAGACEAE, BEECH FAMILY, FAGACÉES				
Quercus macrocarpa Michx.	Bur Oak; Chêne à gros glands			
ULMACEAE, ELM FAMILY, ULMACÉES				
Ulmus americana L.	American Elm; Orme d'Amérique		13	c
URTICACEAE, NETTLE FAMILY, URTICACÉES				
Boehmeria cylindrica (L.) Sw.	False Nettle; Ortie de savane	U		
Laportea canadensis (L.) Wedd.	Wood Nettle; Ortie du Canada			
Pilea pumila (L.) Gray	Clearweed, Stingless Nettle; Petite Ortie			
U. dioica L. ssp. *gracilis* (Ait.) Selander	Slender Stinging Nettle; Ortie élevée, Ortie grêle		T	c
POLYGONACEAE, BUCKWHEAT FAMILY, POLYGONACÉES				
Polygonum cilinode Michx.	Fringed Bindweed; Renouée à noeuds ciliés			
* *P. convolvulus* L.	Black Bindweed; Renouée liseron	U		

OFNC S



PLACE: Unitarian Church Hall
30 Cleary Street
#2 and #18 Buses stop at Cleary Street and Richmond Road.

RESERVATIONS: To order tickets, fill in the order form and send it along with remittance before April 20 to:

The Ottawa Field-Naturalists' Club
c/o Elaine Dickson,
2037 Honeywell Avenue
Ottawa, Ontario, K2A 0P7

OIRÉE

WINE & CHEESE PARTY

Friday, April 27, 2001, 7:30 p.m.

■ selection of wines ■ cheese & crackers ■ non-alcoholic punch
■ tea & coffee ■ fruit

Help make this another festive evening by coming to our annual party and mingling with fellow naturalists.

Join us in honouring The Member of the Year and recipients of the Service Award, Anne Hanes Natural History Award, Conservation awards and the President's Prize.

Members are invited to exhibit photographic prints and original art on a natural history theme. The best overall colour or B. & W. Photograph will be selected by ballot and a prize awarded to the lucky winner.

> Mount display items for easy handling and bring them to the Unitarian Church between 4 and 7 p.m. on Friday, April 27th. Everything is to be taken home at the end of the evening. To reserve exhibition space and for further information contact Philip Martin (729-3218).

Prizes will also be awarded for the best Macoun Field Club displays. Children (primary or high school) who are OFNC members but not Macoun Field Club members are also encouraged to compete.

NAME:_____

ADDRESS:_____

_____

_____PHONE:_____

Please send me ___ tickets to the OFNC Annual Soirée at $9 ($4 for students under 18) per person. Enclosed please find my cheque or money order for $ __.

Table 1, cont'd. Taxon	Common name	ST	Area	CT
P. hydropiper L.	Water-pepper; Poivre-d'eau			
P. lapathifolium L. (incl. *P. scabrum* Moench)	Dock-leaved Knotweed; Renouée à feuilles de Patience			
P. pensylvanicum L.	Pennsylvania Knotweed; Renouée de Pennsylvanie			
**P. persicaria* L.	Lady's-thumb; Renouée persicaire			
**Rumex crispus* L.	Curled Dock; Rumex crépu			
* *R. maritimus* L.	Maritime Dock; Rumex maritime	R		
R. orbiculatus Gray	Great Water Dock; Rumex orbiculaire	U	12	c
CHENOPODIACEAE, GOOSE FOOT FAMILY, CHÉNOPODIACÉES				
* *Atriplex patula* L.	Spearscale; Bonne dame			
* *Chenopodium album* L. (incl. var. *lanceolatum* (Muhl.) Cross & Germ.)	Lamb's Quarters; Chou gras, Poulette grasse			
C. capitatum (L.) Aschers	Strawberry-blite; Blette	U,*R*		
CARYOPHYLLACEAE, PINK FAMILY, CARYOPHYLLACÉES				
* *Cerastium fontanum* Baumg. (*C. vulgatum* L.)	Mouse-ear Chickweed; Céraiste vulgaire			
* *Silene vulgaris* (Moench) Garcke (*S. cucubalus* Wibel)	Bladder Campion; Pétards			
Stellaria calycantha (Ledeb.) Bong.	Northern Starwort; Stellaire calycanthe	S,*R*		
* *S. graminea* L.	Lesser Stitchwort, Lesser Starwort; Stellaire graminoide			
S. longifolia Muhl. ex Willd.	Long-leaved Chickweed; Stellaire à longues feuilles	*R*	12	b
CERATOPHYLLACEAE, HORNWORT FAMILY, CÉRATOPHYLLACÉES				
Ceratophyllum echinatum A. Gray	Coontail	R,*R*		c
RANUNCULACEAE, CROWFOOT FAMILY, RÉNONCULACÉES				
Actaea pachypoda Ell.	White Baneberry; Actée à gros pédicelles			
A. rubra (Ait.) Willd.	Red Baneberry; Poison de couleuvre,		13	c
***A. rubra* (Ait.) Willd. f. *neglecta* (Gillman) Robinson**	**White-fruited Red Baneberry**			
Anemone canadensis L.	Canada Anemone; Anémone du Canada			
A. virginiana L.	Thimbleweed; Anémone de Virginie			
Caltha palustris L.	Marsh-marigold; Populage des marais			
Clematis virginiana L.	Virgin's-bower; Herbe aux queux		3, 12, 13	c
Coptis trifolia (L.) Salisb.	Goldthread; Sabouillane		3	c
Ranunculus abortivus L.	Small-flowered Crowfoot; Renoncule abortive			
* *R. acris* L.	Buttercup; Bouton d'or, Renoncule âcre			
R. pensylvanicus L.f.	Bristly Crowfoot; Renoncule de Pennsylvanie	U		
R. recurvatus Poir.	Hooked Crowfoot; Renoncule recourbée	U		
***R. repens* L.**	**Creeping Buttercup; Bassinet**	U		
R. sceleratus L.	Cursed Crowfoot; Mort aux vaches,	U		
Thalictrum pubescens Pursh	Tall Meadow-rue; Grand Pigamon			
BRASSICACEAE, MUSTARD FAMILY, CRUCIFÈRES				
* *Barbarea vulgaris*	Yellow Rocket; Herbe de Sainte-Barbe			
Cardamine pensylvanica Willd.	Pennsylvania Bitter-cress; Cardamine de Pennsylvanie			
* *Erysimum cheiranthoides* L.	Worm-seed Mustard; Herbe au chantre,			
Rorippa islandica (Oeder)	Yellow Cress; Rorippa d'Islande			

Table 1, cont'd. Taxon	Common name	ST	Area	CT
Borbas				
SARRACENIACEAE, PITCHER-PLANT FAMILY, SARRACÉNIACÉES				
Sarracenia purpurea L.	Pitcher-plant; Herbe-crapaud	LC,*R*		
DROSERACEAE, SUNDEW FAMILY, DROSÉRACÉES				
Drosera rotundifolia L.	Round-leaved Sundew; Herbe à la goutte			
CRASSULACEAE, ORPINE FAMILY, CRASSULACÉES				
Penthorum sedioides L.	Ditch-stonecrop; Penthorum faux-orpin	U		
SAXIFRAGACEAE, SAXIFRAGE FAMILY, SAXIFRAGACÉES				
Chrysosplenium americanum Schwein.	Golden-saxifrage; Dorine d'Amérique	*R*		
Mitella diphylla L.	Bishop's-cap, Mitrewort; Mitrelle à deux feuilles			
M. nuda L.	Naked Mitrewort; Mitrelle nue			
Ribes americanum Mill.	Wild Black Currant; Gadellier américain		12	ab
R. cynosbati L.	Wild Gooseberry; Groseillier des chiens			
R. glandulosum Grauer	Skunk Currant; Gadellier sauvage		13	c
R. hirtellum Michx.	Wild Gooseberry; Groseillier hérissé			
R. lacustre (Pers.) Poir.	Swamp Currant; Groseillier sauvage	U		
R. triste Pall.	Wild Currant; Gadellier amer	S	13	c
Tiarella cordifolia L.	Foamflower; Tiarelle cordifoliée		13	c
ROSACEAE, ROSE FAMILY, ROSACÉES				
Agrimonia gryposepala Wallr.	Hooked Agrimony; Aigremoine à sépales			
Amelanchier arborea (Michaux f.) Fern.	Juneberry			
A. humilis Wieg.	Juneberry			
A. spicata K. Koch (incl. *A. stolonifera* Wieg.)	Shadbush; Petites poires	U		
Aronia melanocarpa (Michx.) Ell.	Black Chokeberry; Gueules noires, Aronie noire			
Crataegus sp.	Hawthorn			
***Dalibarda repens* L.**	**Dewdrop; Dalibarde rampante**	**S,*S***		
Fragaria vesca L.	Wood Strawberry; Fraisier des bois	U		
F. virginiana Duchesne	Wild Strawberry; Fraisier des champs		3	c
Geum aleppicum Jacq.	Yellow Avens, Herb-Bennel; Benoîte d'Alep		3	c
G. canadense Jacq.	White Avens; Benoîte du Canada	U	3	c
G. laciniatum Murr.	Slashed Avens; Benoîte laciniée	R		
G. rivale L.	Water Avens; Benoîte des ruisseaux	*R*	3, 12	c
* *Malus sylvestris* Mill. (*Pyrus malus* L.)	Apple; Pommier			
Potentilla norvegica L.	Rough Cinquefoil; Potentille de Norvège			
Prunus pensylvanica L.f.	Pin Cherry; Petit merisier			
P. serotina Ehrh.	Black Cherry; Cerisier d'automne		13	c
P. virginiana L.	Choke Cherry; Cerisier à grappes		13	c
Rubus allegheniensis Porter, coll. sp.	Blackberry; Ronse alléganienne			
R. idaeus L. var. *strigosus* (Michx.) Maxim.	Red Raspberry; Framboisier, Ronce du mont Ida		12	c
R. occidentalis L.	Black Raspberry; Mûrier, Framboisier noir			
R. odoratus L.	Purple Flowering Raspberry; Framboisier sauvage			
R. pubescens Raf.	Dwarf Raspberry, Dewberry; Fraises à pied		3, 12	c
Sorbus americana Marshall	American Mountain-ash; Sorbier d'Amérique	S	13	c
* *S. aucuparia* L.	European Mountain-ash; Sorbier des oiseaux	R		
Spiraea alba DuRoi	Meadowsweet; Thé du Canada			

Table 1, cont'd. Taxon	Common name	ST	Area	CT
S. tomentosa L.	Steeplebush; Thé du Canada			
FABACEAE, BEAN FAMILY, FABACÉES				
Amphicarpaea bracteata (L.) Fern.	Hog-peanut; Amphicarpe bractéolée			
*** *Lotus corniculatus* L.**	**Bird's-foot Trefoil; Patte d'oiseau**		**12**	**c**
* *Medicago lupulina* L.	Black Medic, Nonesuch; Minette, Triolet			
* *Melilotus alba* Desr.	White Sweet-clover; Trèfle d'odeur blanc			
* *Trifolium hybridum* L.	Alsike Clover; Trèfle Alsike			
* *T. pratense* L.	Red Clover; Trèfle rouge, Trèfle des prés			
**T. repens* L.	White Clover; Trèfle blanc			
**Vicia cracca* L.	Cow Vetch; Jargeau, Petits oiseaux			
OXALIDACEAE, WOOD-SORREL FAMILY, OXALIDACÉES				
Oxalis stricta L. (*O. europea* Jord.)	YellowWood-sorrel; Surette			
EUPHORBIACEAE, SPURGE FAMILY, EUPHORBIACÉES				
Acalypha rhomboidea Raf.	Three-seeded Mercury; Acalyphe rhomboïdal			
* *Euphorbia helioscopia* L.	Sun Spurge; Réveille-matin	S		
CALLITRICHACEAE, WATER-STARWORT FAMILY, CALLITRICHACÉES				
Callitriche verna L.	Common Water-starwort; Callitriche des marais	U		
ANACARDIACEAE, CASHEW FAMILY, ANACARDIACÉES				
Rhus radicans L. (*Toxicodendron radicans* (L.) Kuntze)	Poison Ivy; Herbe à la puce		3, 12, 13	c
R. typhina L.	Staghorn Sumac; Vinaigrier			
AQUIFOLIACEAE, HOLLY FAMILY, AQUIFOLIACÉES				
Ilex verticillata (L.) Gray	Winterberry; Houx verticille			
Nemopanthus mucronatus (L.) Trel.	Mountain-Holly; Faux-houx	*S*		
CELASTRACEAE, STAFF-TREE FAMILY, CÉLASTRACÉES				
Celastrus scandens L.	Bittersweet; Célastre grimpant			
ACERACEAE, MAPLE FAMILY, ACÉRACÉES				
* *Acer ginnala* Maxim.		S		
* *Acer negundo* L.	Box-elder, Manitoba Maple; Érable négondo			
A. pensylvanicum L.	Moosewood, Striped Maple; Bois d'orignal, Érable barré		3	c
A. rubrum L.	Red Maple; Plaine, Plaine rouge, Érable rouge		12, 13	c
A. saccharinum L.	Silver Maple, Soft Maple; Plaine blanche, Érable argenté, Érable blanc			
A. saccharum Marshall	Sugar Maple; Érable franc, Érable franche, Érable à sucre			
A. spicatum Lam.	Mountain Maple; Érable à épis		T, 12, 13	c
BALSAMINACEAE, TOUCH-ME-NOT FAMILY, BALSAMINACÉES				
Impatiens capensis Meerb. (*I. biflora* Walt.)	Touch-me-not; Chou sauvage		12,12 13	c
RHAMNACEAE, BUCKTHORN FAMILY, RHAMNACÉES				
Rhamnus alnifolia L'Hér.	Alder-leaved Buckthorn; Nerprun à feuilles d'aulne		T	c
**R. cathartica* L.	Common Buckthorn; Nerprun cathartique		12	c
**R. frangula* L.	Glossy Buckthorn; Nerprun bourdaine		T, 12,13	c
* *R. f.* var. *angustifolia* Loudon	Glossy Buckthorn; Nerprun bourdaine	U		

Table 1, cont'd. Taxon	Common name	ST	Area	CT
* *R. f.* var. *asplenifolia* Dippel	Glossy Buckthorn; Nerprun bourdaine	S		
VITACEAE, GRAPE FAMILY, VITACÉES				
Parthenocissus vitacea (Knerr) A.S. Hitchc.	Virginia Creeper; Vigne vierge		T, 13	c
Vitis riparia Michx.	Frost Grape, Wild Grape; Raisin sauvage, Vigne sauvage, Vigne des battures		12,13	c
TILIACEAE, LINDEN FAMILY, TILIACÉES				
Tilia americana L.	Basswood; Bois blanc, Tilleul d'Amérique		12	c
HYPERICACEAE, ST.JOHN'S-WORT FAMILY, HYPÉRICACÉES				
Hypericum majus (Gray) Britt.	Large St.- John's-wort; Millepertuis majeur			
***H. perforatum* L.**	**Common St. John's-wort; Millepertuis commun**			
H. punctatum Lam.	Spotted St. John's-Wort; Millepertuis ponctué	S		
VIOLACEAE, VIOLET FAMILY, VIOLACÉES				
Viola blanda Willd.	Sweet White Violet; Violette agréable			
V. conspersa Reich.	Dog Violet; Violette décombante			
V. incognita Brainerd	Large-leaved White Violet; Violette méconnue	S		
V. macloskeyi Lloyd ssp. *pallens* (Banks) M.S. Baker	Northern White Violet; Violet pâle			
V. pubescens Ait.	Downy Yellow Violet; Violette pubescente			
V. renifolia Gray	Kidney-leaved Violet; Violette réniforme	S		
V. sororia Willd.	Woolly Blue Violet; Violette parente			
LYTHRACEAE, LOOSESTRIFE FAMILY, LYTHRACÉES				
* *Lythrum salicaria* L.	Purple Loosestrife; Lythrum salicaire		12	a
ONAGRACEAE, EVENING PRIMROSE FAMILY, ONAGRACÉES				
Circaea alpina L.	Smaller or Alpine Enchanter's Nightshade; Circée alpine	U	3, 13	c
C. lutetiana L. ssp. *canadensis* (L.) Asch. & Magnus	Enchanter's Nightshade; Circée de Lutèce		13	c
Epilobium angustifolium L. *E. ciliatum* ssp. *ciliatum*	Great Willow-herb; Lilas de montagne			
E. ciliatum ssp. *glandulosum* (Lehm.) Hoch & Raven	Northern Willow-herb; Epilobe glanduleux			
E. coloratum Biehler	Purple-leaved Willow-herb; Epilobe coloré	S		
**E. hirsutum* L.	Hairy Willow-herb	S		
E. leptophyllum Raf.	Narrow-leaved Willow-herb; Epilobe à feuilles étroites	S		
E. strictum Muhl.	Downy Willow-herb; Epilobe étroite	S,*S*		
Oenothera biennis L.	Evening-primrose; Herbe aux ânes			
HALORAGIDACEAE, WATER-MILFOIL FAMILY, HALORAGIDACÉES				
Myriophyllum verticillatum L.	Whorled Water-milfoil; Myriophylle verticillé	S,*R*		
ARALIACEAE, GINSENG FAMILY, ARALIACÉES				
Aralia nudicaulis L.	Wild Sarsaparilla; Salsepareille		3, 12, 13	c
A. racemosa L.	Spikenard, Indian-root; Grande Salsepareille, Anissauvage	U		
APIACEAE, PARSLEY FAMILY, APIACÉES				
***Angelica sylvestris* L.**	**Woodland Angelica**			
Cicuta bulbifera L.	Bulb-bearing Water-hemlock; Cicutaire bulbifère			
C. maculata L.	Water-hemlock, Cowbane, Beaver-poison; Carotte à Moreau	U		

Table 1, cont'd. Taxon	Common name	ST	Area	CT
*** *Daucus carota* L.**	**Queen Anne's-lace; Carotte sauvage**			
Hydrocotyle americana L.	Marsh-pennywort; Hydrocotyle d'Amérique	*R*		
Osmarhiza claytanii (Michx.) Clarke	Hairy Sweet Cicely, Sweet Jarvil; Osmorrhize de Clayton			
* *Pastinaca sativa* L.	Wild Parsnip; Panais, Panais sauvage			
***Sanicula gregaria* Bickn.**	**Yellow Snakeroot; Sanicle grégaire**	U		
CORNACEAE, DOGWOOD FAMILY, CORNACÉES				
Cornus alternifalia L.f.	Alternate-leaved Dogwood; Cornouiller à feuilles alternes		13	c
C. canadensis L.	Bunchberry, Pigeonberry; Quatre-temps, Rougets, Cornouiller du Canada			
C. stolonifera Michx.	Red Osier, Kinnikinnik; Harts rouges, Poison			
PYROLACEAE, WINTERGREEN FAMILY, PYROLACÉES				
Moneses uniflora (L.) Gray	One-flowered Wintergreen; Monésès uniflore	U,*S*		
Monatropa uniflara L.	Indian Pipe; Monotrope uniflore			
Orthilia secunda (L.) House	One-sided Pyrola; Pyrole unilatérale			
Pyrola asarifalia Michx.	Pink Pyrola, Pink-wintergreen; Pyrole à feuilles d'Asaret	U		
P. elliptica Nutt.	Shinleaf; Pyrole elliptique		3	c
ERICACEAE, HEATH FAMILY, ÉRICACÉES				
Andrameda glaucophylla Link	Bog Rosemary; Andromède glauque	LC,*S*		
Gaultheria hispidula (L.) Muhl. ex Biglow	Creeping Snowberry; Oeufs-de-perdrix	U	3	c
G. procumbens L.	Wintergreen; Thé des bois			
Gaylussacia baccata (Wang.) K. Koch	Huckleberry; Gueules noir	U		
Kalmia angustifalia L.	Sheep Laurel; Crevard de moutons	LC		
Ledum groenlandicum Oeder	Labrador Tea; Thé du Labrador	LC	3, 13	c
Vaccinium corymbasum L.	High Bush Blueberry; Bleuets en arbre	LC		
V. myrtilloides Michx.	Velvetleaf Blueberry; Bleuets, Airelle fausse-myrtille			
V. oxycoccus L.	Small Cranberry; Airelle canneberge	LC		
PRIMULACEAE, PRIMROSE FAMILY, PRIMULACÉES				
Lysimachia thyrsiflora L.	Tufted Loosestrife; Corneille en bouquet	U		
Trientalis barealis Raf.	Starflower; Trientale boréale		3, 13	c
OLEACEAE, OLIVE FAMILY, OLÉACÉES				
Fraxinus americana L.	White Ash; Frêne d'Amérique			
F. nigra Marshall	Black Ash; Frêne noir		12, 13	c
F. pennsylvanica Marshall	Red Ash; Frêne rouge		12	c
GENTIANACEAE, GENTIAN FAMILY, GENTIANACÉES				
Gentiana andrewsii Griseb.	Bottle Gentian; Gentiane d'Andrews	U		
MENYANTHACEAE, BUCKBEAN FAMILY, MÉNYANTHACÉES				
Menyanthes trifoliata L.	Buckbean; Herbe à canards	LC		
APOCYNACEAE, DOGBANE FAMILY, APOCYNACÉES				
Apacynum andrasaemifolium L.	Dogbane; Herbe à la puce			
A. cannabinum L.	Indian Hemp; Chanvre sauvage	S		
ASCLEPIADACEAE, MILKWEED FAMILY, ASCLÉPIADACÉES				
Asclepias incarnata L.	Swamp Milkweed; Asclépiade incarnate			
A. syriaca L.	Common Milkweed; Cochons de lait			
CONVOLVULACEAE, MORNING-GLORY FAMILY, CONVOLVULACÉES				
Convolvulus sepium L.	Hedge Bindweed; Liseron des hais	U		

Table 1, cont'd. Taxon	Common name	ST	Area	CT
Cuscuta gronovii Willd.	Dodder, Angel's-hair; Cuscute	U		
BORAGINACEAE, BORAGE FAMILY, BORAGINACÉES				
Hackelia virginiana (L.) Johnst.	Virginian Stickseed; Hackélia de Virginie	S		
**Lithospermum officinale* L.	Gromwell; Herbe aux perles			
VERBENACEAE, VERVAIN FAMILY, VERBÉNACÉES				
Verbena hastata L.	Blue Vervain; Verveine hastée			
LAMIACEAE, MINT FAMILY, LAMIACÉES				
Lycopus americanus Muhl. ex W.P.C. Barton	Cut-leaved Bugleweed; Lycope d'Amérique			
L. uniflorus Michx.	Northern Bugleweed; Lycope uniflore		13	c
Mentha arvensis L.	Wild Mint; Menthe du Canada			
* *Prunella vulgaris* L.	Heal-all, Self-heal; Brunelle			
Satureja vulgaris (L.) Fritsch	Wild Basil; Herbe au mastic			
Scutellaria galericulata L.	Marsh Skullcap; Scutellaire			
S. lateriflora L.	Mad Dog Skullcap; Scutellaire latériflore			
SOLANACEAE, NIGHTSHADE FAMILY, SOLANACÉES				
* *Solanum dulcamara* L.	Bittersweet; Douce-amère		T, 12	c
SCROPHULARIACEAE, FIGWORT FAMILY, SCROPHULARIACÉES				
Agalinis tenuifolia (Vahl) Raf. (*Gerardia tenuifolia* Vahl)	Slender Gerardia	S		
Chelone glabra L.	Turtlehead; La Tortue	U		
* *Linaria vulgaris* Hill	Butter-and-eggs; Gueule de lion			
Mimulus ringens L.	Monkey-flower			
Penstemon digitalis Nutt.	Fox-glove Beardtongue; Penstémon digitale	LC		
* *Verbascum thapsus* L.	Mullein; Bouillon blanc			
Veronica scutellata L.	Marsh Speedwell; Véronique en écusson	U		
* *V. serpyllifolia* L.	Thyme-leaved Speedwell; Véronique à feuilles de serpolet			
LENTIBULARIACEAE, BLADDERWORT FAMILY, LENTIBULARIACÉES				
Utricularia minor L.	Lesser Bladderwort; Utriculaire mineure	S,*S*		
U. vulgaris L.	Common Bladderwort; Utriculaire des marais			
PHRYMACEAE, LOPSEED FAMILY, PHRYMACÉES				
Phryma leptostachya L.	Lopseed; Phryma à épis grêles			
PLANTAGINACEAE, PLANTAIN FAMILY, PLANTAGINACÉES				
**Plantago major* L.	Common Plantain; Grand Plantain			
RUBIACEAE, MADDER FAMILY, RUBIACÉES				
Galium asprellum Michx.	Rough Bedstraw; Gaillet piquant			
G. labradoricum (Wieg.) Wieg.	Bog Bedstraw; Gaillet du Labrador	R,*S*		
G. palustre L.	Marsh Bedstraw; Gaillet palustre		12	a
G. tinctorium L.	Dyer's Bedstraw; Gaillet des teinturiers	R		
G. trifidum L.	Small Bedstraw; Tissavoyanne rouge	U		
G. triflorum Michx.	Sweet-scented Bedstraw; Gaillet à trois fleurs			
Mitchella repens L.	Partridge-berry; Pain de perdrix		3	c
CAPRIFOLIACEAE, HONEYSUCKLE FAMILY, CAPRIFOLIACÉES				
Diervilla lonicera Mill.	Northern Bush-honeysuckle; Chèvrefeuille d'Acadie			
Linnaea borealis L.	Twinflower; Linnée boréale	S	3	c
* *Lonicera xbella* Zabel				
Lonicera canadensis Bartr. ex Marshall	Canada Fly-honeysuckle; Chèvrefeuille du Canada		3, 13	c
L. dioica L.	Wild Honeysuckle; Chèvrefeuille dioique	U		
L. oblongifolia (Goldie) Hook.	Swamp Fly-honeysuckle; Chèvrefeuille à	S	12	b

Table 1, cont'd. Taxon	Common name	ST	Area	CT
	feuilles oblongues			
* *L. tatarica* L.	Tartarian Honeysuckle; Chèvrefeuille de Tartarie			
L. villosa (Michx.) R. & S.	Waterberry; Chèvrefeuille velu	R,*R*		
Sambucus canadensis L.	Common Elder; Sureau du Canada	U	3, 12	c
S. pubens Michx.	Red-berried Elder; Sureau rouge			
***Viburnum alnifolium* Marshall**	**Hobblebush; Bois d'orignal**	**S**		
V. cassinoides L.	Withe-rod; Viorne cassinoide	S		
V. lentago L.	Nannyberry; Alisier, Bourdaine			
V. trilobum Marshall	Highbush cranberry; Viorne trilobée	U		
VALERIANACEAE, VALERIAN FAMILY, VALÉRIANACÉES				
Valeriana uliginosa (T. & G.) Rydb.	Swamp valerian	*S2,R*		
CUCURBITACEAE, GOURD FAMILY, CUCURBITACÉES				
Echinocystis lobata (Michx.) T. & G.	Wild Cucumber; Concombre sauvage			
CAMPANULACEAE, HAREBELL FAMILY, CAMPANULACÉES				
Lobelia inflata L.	Indian Tobacco; Lobélie gonflée			
ASTERACEAE, COMPOSITE FAMILY, ASTÉRACÉES				
Achillea millefolium L. (incl. *A. lanulosa* Nutt.)	Yarrow; Achillée millefeuille			
* *Arctium minus* Bernh.	Common Burdock; Bardane			
* *Artemisia biennis* L.	Biennial Wormwood; Herbe Saint-Jean			
Aster acuminatus Michx.	Whorled Wood Aster; Aster acuminé	R	T	c
A. borealis (T. & G.) Prov. (syn. *A. junciformis* Rydb.)	Rush Aster; Aster jonciforme	S,*S*		
A. ciliolatus Lindl. (*A. lindleyanus* T. & G.)	Ciliolate Aster; Aster ciliolé			
A. cordifolius L.	Heart-leaved Aster; Aster à feuilles cordées			
A. lanceolatus Willd. (syn. *A. simplex* Willd.)	Panicled Aster; Aster simple			
A. lateriflorus (L.) Britt.	Calico Aster; Aster latériflore			
A. macrophyllus L.	Large-leaved Aster; Pétouane			
A. novae-angliae L.	New England Aster; Aster de la Nouvelle-Angleterre			
A. puniceus L.	Purple-stemmed Aster; Aster ponceau			
A. umbellatus Mill.	Flat-topped White Aster; Aster à ombelles		13	c
Bidens cernuus L.	Nodding Beggarticks; Fourchettes			
B. frondosus L.	Large-leaved Beggarticks; Bident feuillu, Fourchettes			
B. tripartitus L. (incl. *B. connatus* Muhl. & *B. comosus* (Gray) Wieg.)	Beggarticks; Fourchettes	S		
B. vulgatus Greene		U,*R*		
* *Chrysanthemum leucanthemum* L.	Ox-eye Daisy; Marguerite blanche		T	c
* *Cirsium arvense* (L.) Scop.	Canada Thistle; Chardon des champs			
* *C. vulgare* (Savi) Tenore	Bull Thistle; Gros Chardon			
Conyza canadensis (L.) Cronq. (*Erigeron canadensis* L.)	Horseweed, Canada fleabane; Érigéron du Canada			
* *Crepis tectorum* L.	Hawk's-beard; Crépis des toits, Crépide	R		
Erechtites hieracifolia (L.) Raf.	Pilewort; Erechtite à feuilles d'épervière	U		
Erigeron annuus (L.) Pers.	Daisy Fleabane; Erigéron annuel			
E. philadelphicus L.	Philadelphia Fleabane; Erigéron de			

Table 1, cont'd. Taxon	Common name	ST	Area	CT
	Philadelphie			
Eupatorium maculatum L.	Spotted Joe-Pye-Weed; Eupatoire maculée		12	a
E. perfoliatum L.	Boneset; Herbe à souder		T, 12	a
E. rugosum Houtt.	White-snakeroot; Eupatoire rugueuse		12, 13	c
Gnaphalium obtusifolium L.	Sweet Everlasting; Gnaphale à feuilles obtuses, Catfoot	S		
G. uliginosum L.	Low Cudweed; Gnaphale des vases	U		
* *Helianthus annuus* L.	Common Sunflower; Tourne-soleil	S		
* *Hieracium aurantiacum* L.	Devil's Paintbrush; Marguerite rouge			
* *H. florentinum* All.	King Devil; Épervière florentine			
* *H. pilosella* L.	Mouse-ear Hawkweed; Épervière piloselle	S		
* *H. pratense* Tausch	Field Hawkeed; Épervière des près	S		
* *Inula helenium* L.	Elecampane; Inule aulnée			
Lactuca biennis (Moench) Fern.	Blue Lettuce; Laitue bisannuelle	U		
L. canadensis L.	Canada Lettuce; Chicorée blanche			
* *L. muralis* (L.) Gaertn.	Wall Lettuce; Pendrille	R		
* *L. scariola* L. (*L. serriola* L.)	Prickly Lettuce; Plante boussole			
Prenanthes altissima L.	Tall White-lettuce; Prenanthe élevée			
Rudbeckia hirta L. var. *pulcherrima* Farwell	Brown-eyed Susan; Obéliscaire			
Senecio pauperculus Michx.	Balsam Ragwort; Séneçon appauvri			
Solidago altissima L.	Tall Goldenrod; Verge d'or très élevée			
S. canadensis L.	Canada Goldenrod; Verge d'or du Canada		T, 12	c
S. gigantea Ait.	Giant Goldenrod; Verge d'or géante			
S. graminifolia (L.) Salisb.	Narrow-leaved Goldenrod; Verge d'or graminifoliée			
S. nemoralis Ait.	Gray Goldenrod; Verge d'or des bois			
S. rugosa Mill.	Rough Goldenrod; Verge d'or rugueuse		12	c
S. uliginosa Nutt. (incl. *S. purshii* Nutt.)	Bog or Marsh Goldenrod; Verge d'or des marais	U		
* *Sonchus arvensis* L.	Sow-thistle; Laiteron des champs			
* *S. oleraceus* L.	Annual Sow Thistle; Chaudron blanc, Laiteron	S		
S. palustris	**Marsh Sowthistle**			
* *Tanacetum vulgare* L.	Common Tansy; Tanaisie	U		
* *Taraxacum officinale* Weber	Dandelion; Pissenlit		T	c
* *Tragopogon dubius* Scop. (*T. major* Jacq.)	Goat's-beard; Salsifis			
* *Tussilago farfara* L.	Coltsfoot; Pas-d'âne, Tussilage farfara	S		

a: Vouchers collected and identified by R. Boles, 19 June 1999, Great Canadian Bioblitz.
b: Vouchers collected and identified by L. Consaul, 19 June 1999, Great Canadian Bioblitz.
c: Other species identified on the Great Canadian Bioblitz, 19 June 1999, by S. & H. Thomson, A. Dugal, R. Boles, L. Consaul, or R. Lee.
d: Identified as a new record for the wetland by A. Dugal on the Great Canadian Bioblitz, 19 June 1999.
T: recorded generally from the wetland on the Great Canadian Bioblitz, 1999, with no precise locality.
no code: Other species were identified by A. Dugal.

Table 2: Species list for the mosses and liverworts of the Leitrim. "Area" numbers correspond to the community map. CT = collection information.

Species name	Common name	Area	CT
DIVISON HEPATICAE	**LIVERWORTS**		
ANEURACEAE			
Aneura pinguis (L.) Dum.			b
Riccardia latifrons (Lindb.) Lindb.		12	a,b
Riccardia multifida (L.) S. Gray			b
CALYPOGEJACEAE			
Calypogeja integristipula Steph.		13	a,b
Calypogeja neesiana (Mass. & Carest.) K. Müll.		13	a
CEPHALOZIACEAE			
Cephalozia bicuspidata (L.) Dum.			b
Cephalozia lunulifolia (Dum.) Dum.	Crescent-leaved liverwort	13	a,b
Cephalozia pleniceps (Aust.) Lindb.			b
Nowellia curvifolia (Dicks.) Mitt.			b
CEPHALOZIELLACEAE			
Cephaloziella hampeana (Nees) Schiffn.			b
Cephaloziella rubella (Nees) Warnst.			b
Cephaloziella rubella (Nees) Warnst. var. *sullivantii* (Aust.) K. Müll.			b
CONOCEPHALACEAE			
Conocephalum conicum (L.) Lindb.			b
GEOCALYCACEAE			
Chiloscyphus pallescens (Ehrh. *ex* Hoffm.) Dum.			b
Chiloscyphus profundus (Nees) Engel & Schust.	Variable Lophocolea (based on old name of *Lophocolea heterophylla*)	12, 13	a,b
Geocalyx graveolens (Schrad.) Nees		12, 13	a,b
JUBULACEAE			
Frullania eboracensis Gott.		12	a,b
JUNGERMANNIACEAE			
Anastrophyllum helleranum (Nees) Schust.			b
Jamesoniella autumnalis (DC.) Steph.	Jameson's Liverwort	12, 13	a,b
Jamesoniella autumnalis (DC.) Steph. var. *myriocarpa* (Brinkm.) Frye et Clark			b
Jungermannia leiantha Grolle		13	a
Lophozia incisa (Schrad.) Dum.			b
Lophozia ventricosa (Dicks.) Dum.			
Mylia anomala (Hook.) S. Gray			b
LEJEUNEACEAE			
Cololejeunea biddlecomiae (Aust.) Evans			b
LEPIDOZIACEAE			
Bazzania trilobata (L.) S. Gray	Three-lobed Liverwort	13	a,b
Lepidozia reptans (L.) Dum.			b
MARCHANTIACEAE			
Marchantia polymorpha L.			b
Preissia quadrata (Scop.) Nees		13	a,b
PALLAVICINIACEAE			
Moerckia hibernica (Hook.) Gott.			b

Table 2, cont'd

Species name	Common name	Area	CT
PELLIACEAE			
Pellia epiphylla (L.) Corda			b
PORELLACEAE			
Porella platyphylla (L.) Pfeiff.		13	a,b
PSEUDOLEPICOLEACEAE			
Blepharostoma trichophylla (L.) Dum.			b
PTILIDIACEAE			
Ptilidium pulcherrimum (G. Web.) Hampe			b
RADULACEAE			
Radula complanata (L.) Dum.		12, 13	a,b
RICCIACEAE			
Riccia fluitans L.			b
SCAPANIACEAE			
Scapania mucronata Buch			b
Scapania nemorosa (L.) Dum.			b
TRICHOCOLEACEAE			
Trichocolea tomentella (Ehrh.) Dum.			b
DIVISON MUSCI	**MOSSES**		
AMBLYSTEGIACEAE			
Amblystegium serpens (Hedw.) Schimp. *in* B.S.G.			b
Amblystegium varium (Hedw.) Lindb.	Variable Hypnum Moss	12	a,b
Calliergon cordifolium (Hedw.) Kindb.		12	a,b
Calliergon giganteum (Schimp.) Kindb.			b
Calliergon richardsonii (Mitt.) Kindb. *in* Warnst.			b
Campylium chrysophyllum (Brid.) J. Lange	Spreading-leaved Hypnum Moss	12, 13	a,b
Campylium hispidulum (Brid.) Mitt.	Hispid Hypnum Moss	12, 13	a,b
Campylium stellatum (Hedw.) C. Jens.			b
Cratoneuron filicinum (Hedw.) Spruce		12,13	a,b
Drepanocladus aduncus (Hedw.) Warnst.			b
Hamatocaulis vernicosus (Mitt.) Hedenäs			b
Lepidictyum humile (P. Beauv.) Ochyra			b
Lepidictyum riparium (Hedw.) Warnst.			a,b
Limprichtia cossonii (Schimp.) Anderson et al.			b
Sanionia uncinata (Hedw.) Loeske			b
ANOMODONTACEAE			
Anomodon attenuatus (Hedw.) Hüb.	Slender Anomodon Moss	12	a
AULACOMNIACEAE			
Aulacomnium palustre (Hedw.) Schwaegr.			b
BRACHYTHECIACEAE	RAGGED MOSS FAMILY		
Brachythecium campestre (C. Müll.) Schimp. *in* B.S.G.	Plain Brachythecium Moss	13	a,b
Brachythecium oedipodium (Mitt.) Jaeg.			b
Brachythecium oxycladon (Brid.) Jaeg.	Long-capsuled Brachythecium Moss	12	a
Brachythecium populeum (Hedw.) Schimp. *in* B.S.G.		12	a

Table 2, cont'd

Species name	Common name	Area	CT
BRACHYTHECIACEAE, con't	RAGGED MOSS FAMILY		
Brachythecium rivulare Schimp. *in* B.S.G.			b
Brachythecium rutabulum (Hedw.) Schimp. *in* B.S.G.		12	a
Brachythecium salebrosum (Web. & Mohr) Schimp. *in* B.S.G.		12	a
Brylinia novae-angliae (Sull. & Lesq. *in* Sull.) Grout			b
Eurhynchium pulchellum (Hedw.) Jenn.		13	a,b
Steerecleus serrulatus (Hedw.) Robins.	Rhynchostegium Moss	12	a
Tomenthypnum nitens (Hedw.) Loeske			b
BRYACEAE			
Bryum argenteum Hedw.			b
Bryum caespiticium Hedw.	Tufted Bryum	12, 13	a
Bryum lisae De Not. var. *cuspidatum* (Brueh & Schimp. *in* B.S.G.) Marg.			b
Bryum pseudotriquetrum (Hedw.) Gaertn., Meyer & Seherb.		12	a,b
Leptobryum pyriforme (Hedw.) Wils			b
Pohlia nutans (Hedw.) Lindb.			b
Pohlia wahlenbergii (Web. & Mohr) Andrews			b
Rhodobryum ontariense (Kindb.) Par. *in* Kindb.			b
CLIMACIACEAE	TREE MOSS FAMILY		
Climacium dendroides (Hedw.) Web. & Mohr	Northern Tree Moss	12	a,b
DICRANACEAE			
Dicranella heteromalla (Hedw.) Sehimp.		12	a
Dicranella varia (Hedw.) *Schimp.*			b
Dicranum bonjeanii De Not. *in* Lisa		12	a
Dicranum flagellare Hedw.	Spiky Dicranum Moss	13	a,b
Dicranum fuscescens Turn.			b
Dicranum montanum Hedw.	Lawn Moss	12	a,b
Dicranum polysetum Sw.			b
Dicranum scoparium Hedw.			b
Dicranum undulatum Brid.			b
Dicranum viride (Sull. & Lesq. *in* Sull.) Lindb.		13	a,b
Oncophorus wahlenbergii Brid.		12	a,b
DITRICHACEAE			
Ceratodon purpureus (Hedw.) Brid.	Fire Moss; Purple Ceratodon Moss; Horned-toothed Moss	12	a,b
ENTODONACEAE			
Entodon cladorrhizans (Hedw.) C. Müll.			b
FISSIDENTACEAE	SPLIT TOOTHED MOSS FAMILY		
Fissidens adianthoides Hedw.		13	a,b
Fissidens dubius P. Beauv.			b
Fissidens osmundioides Hedw.		13	a,b

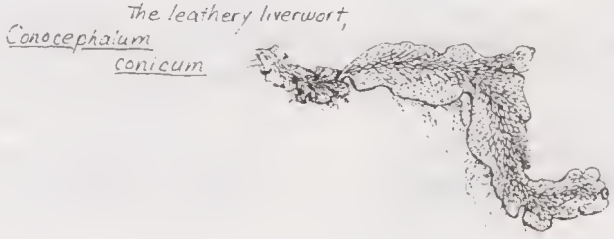
Table 2, cont'd

Species name	Common name	Area	CT
FUNARIACEAE, CORD MOSS FAMILY			
Funaria hygrometrica Hedw.			b
Physcomitrium pyriforme (Hedw.) Hampe		12	a,b
HEDWIGIACEAE			
Hedwigia ciliata (Hedw.) P. Beauv.	Ciliate Hedwigia Moss	12	a,b
HELODIACEAE			
Helodium blandowii (Web. & Mohr) Warnst.			b
HYLOCOMIACEAE			
Hylocomium splendens (Hedw.) Schimp. *in* B.S.G.			b
Pleurozium schreberi (Brid.) Mitt.	Schreber's Moss	12	a,b
Rhytidiadelphus triquetrus (Hedw.) Warnst.			b
HYPNACEAE			
Calliciadium haldanianum (Grev.) Crum	Beautiful Branch Moss	12, 13	a,b
Herzogiella turfacea (Lindb.) Iwats.		13	a,b
Hypnum imponens Hedw.	Pinnate Moss	13	a,b
Hypnum lindbergii Mitt.		12, 13	a,b
Hypnum pallescens (Hedw.) P. Beauv.	Stump Pigtail Moss		a,b
Platygyrium repens (Brid.) Schimp. *in* B.S.G.		12, 13	a,b
Pylaisiella polyantha (Hedw.) Grout		12	a,b
Pylaisiella selwynii (Kindb.) Crum, Steere & Anders.		12	a
LESKEACEAE			
Bryohaplocladium microphyllum (Hedw.) Wat. & Iwats.	Tiny-leaved Haplocladium Moss	12	a,b
Leskea polycarpa Hedw.		12	a
LEUCOBRYACEAE			
Leukobryum glaucum (Hedw.) Ångstr. *in* Fries			b
MNIACEAE	MNIUM FAMILY		
Mnium spinulosum (Voit) Schwaegr.			b
Plagiomnium ciliare (C. Müll.) T. Kop.		12	a,b
Plagiomnium cuspidatum (Hedw.) T. Kop.	Woodsy Mnium Moss	12	a,b
Plagiomnium drummondii (Bruch & Schimp.) T. Kop.			b
Plagiomnium ellipticum (Brid.) T. Kop.		12	a
Rhizomnium appalachianum T. Kop.			b
Rhizomnium pseudopunctatum (Bruch & Schimp.) T. Kop.			b
NECKERACEAE			
Homalia trichomanoides (Hedw.) Schimp. *in* B.S.G.			b
Neckera pennata (Hedw.)			b
ORTHOTRICHACEAE			
Orthotrichum obtusifolium Brid.		12	a,b
Orthotrichum speciosum var. *elegans* (Schwaegr. *ex* Hook. & Grev.) Warnst.		12	a,b
Orthotrichum stellatum Brid.			b
Ulota coarctata (P. Beauv.) Hammar			b
Zygodon viridissimus var. *rupestris* Lindb. *ex* Hartm.		12	a

Table 2, cont'd

Species name	Common name	Area	CT
PLAGIOTHECIACEAE	COTTON MOSS FAMILY		
Plagiothecium cavifolium (Brid.) Iwats.			b
Plagiothecium denticulatum (Hedw.) Schimp. *in* B.S.G.			b
POLYTRICHACEAE			
Plagiothecium laetum Schimp. *in* B.S.G.	Glossy Moss	12, 13	a,b
Polytrichum commune Hedw.			b
Polytrichum formosum Hedw.			b
Polytrichum strictum Brid.			b
POTTIACEAE			
Barbula unguiculata Hedw.			b
SEMATOPHYLLACEAE			
Brotherella recurvans (Michx.) Fleisch.			b
SPHAGNACEAE	PEAT MOSS FAMILY		
Sphagnum capillifolium (Ehrh.) Hedw.	Small Red Peat Moss	12, 13	a,b
Sphagnum fimbriatum Wils. *in* Wils. & Hook. f. *in* Hook. f.			b
Sphagnum girgensohnii Russ.			b
Sphagnum magellanicum Brid.			b
Sphagnum russowii Warnst.			b
Sphagnum squarrosum Crome			b
Sphagnum warnstorfii Russ.			b
Sphagnum wulfianum Girg.			b
TETRAPHIDACEAE	FOUR TOOTH MOSS FAMILY		
Tetraphis pellucida Hedw.	Common Four-tooth Moss	12	a,b
THUIDIACEAE	FERN MOSS FAMILY		
Thuidium delicatulum (Hedw.) Schimp. *in* B.S.G.	Common Fern Moss	13	a,b
Thuidium recognitum (Hedw.) Lindb.		12	a,b

a: Collected and identified by Linda Ley, June 19, 1999. Great Canadian Bio-blitz.
b: Collected by Linda Ley and Robert Ireland, east of Albion Road. Pre-1993.



by Aleta Karstad, from *Canadian Nature Notebook*

Table 3: Algae collected from the waterways of the Leitrim wetland complex. Except where indicated, species were collected in 1989 by Paul Hamilton. Species marked with an asterisk (*) were collected by Ruben Boles from Area 12, June 19 1999, Great Canadian Bio-blitz.

CHLOROPHYTA
CHARALES (STONEWORTS)
Chara vulgaris L.*
ZYGNEMATALES
Spirogyra sp.
BACILLARIOPHYTA (DIATOMS)
ACHNANTHALES
Achnanthes delicatula (Kütz.) Grun.
Achnanthes hungarica Grun.
Achnanthes lanceolata (Bréb) Grun.
Achnanthes microcephala
Achnanthes minutissima Kütz.
Cocconeis placentula Ehrenb.
CENTRALES
Aulacoseira ambigua (Grun.) Simonsen
Aulacoseira italica (Ehrenb.) Simonsen
Cyclotella meneghiniana Kütz.
EPITHEMIALES
Epithemia turgida (Ehrenb.) Kütz.
Rhopalodia gibba (Ehrenb.) O.F. Müll.
EUNOTIALES
Eunotia curvata (Kütz.) Lagerst.
FRAGILARIALES
Fragilaria capucina Desmaz.
Fragilaria construens (Ehrenb.) Grun. var. *binodis* (Ehrenb.) Grun.
Fragilaria crotonensis Kitton
Fragilaria pinnata Ehrenb.
Meridion circulare (Grev.) Ag.
Synedra capitata Ehrenb.
Synedra rumpens Kütz.
Synedra ulna (Nitzsch) Ehrenb.
NAVICULALES
Amphora ovalis (Kütz.) Kütz.
Cymbella aspera (Ehrenb.) H. Perag.
Cymbella hauckii V.H.
Cymbella hybrida Grun. *ex* Cl.
Cymbella microcephala Grun.
Cymbella minuta Hisle *ex* Rabh. var. *silesiaca* (Bleisch *ex* Rabh.) Reim.
NAVICULALES, con't
Cymbella minuta Hisle *ex* Rabh.
Gomphonema angustatum (Kütz.) Rabh.
Gomphonema gracile Ehrenb.
Gomphonema subclavatum (Grun.) Grun. var. *mexicanum* (Grun.) Patr.
Gomphonema subclavatum (Grun.) Grun.
Gomphonema truncatum Ehrenb. var. *capitatum* (Ehrenb.) Patr.
Gomphonema truncatum Ehrenb.
Amphipleura pellucida (Kütz.) Kütz.
Brachysira vitrea (Grun.) Ross
Caloneis bacillum (Grun.) Cl.
Caloneis ventricosa (Ehrenb.) Meist. var. *minuta* (Grun.) Patr.
Diploneis smithii (Bréb. *ex* W. Sm.) Cleve
Frustulia rhomboides (Ehrenb.) De Toni var. *viridula* (Bréb. *ex* Kütz.) Cleve
Navicula arvensis Hust.
Navicula cincta (Ehrenb.) Ralfs
Navicula cryptocephala Kütz.
Navicula cuspidata (Kütz.) Kütz.
Navicula pupula Kütz. var. *rectangularis* (Greg.) Grun.
Navicula radiosa Kütz.
Neidium iridis (Ehrenb.) Cleve
Pinnularia flexuosa Cl.
Pinnularia gibba Ehrenb.
Pinnularia viridis (Nitzsch) Ehrenb.
Rhoicosphenia curvata (Kütz.) Grun.
Stauroneis anceps Ehrenb.
Stauroneis phoenicentereon (Nitzsch) Ehrenb.
Nitzschia acicularis (Kütz.) W. Sm.
Nitzschia amphibia Grun.
Nitzschia fonticola Grun.
Nitzschia linearis W. Sm.
Nitzschia obtusa W. Sm.
Nitzschia palea (Kütz.) W. Sm.
Surirella ovata Kütz.

Table 4: Species list for the lichens. ST is Status based on Brodo (1988); R = rare, U = uncommon. AR = Area within the wetland, as mapped in Figure 3. CT = collector information. GF = growth form; cr = crustose, fo = foliose, and fr = fruticose.

Species name	Common name	ST	AR	CT	GF
ARTHONIACEAE					
Arthonia byssacea (Weigel) Almq.		R		a	cr
CLAVARIACEAE					
Multiclavula mucida (Fr.) R. Petersen	Club lichen	U		a	cr/fr
GYALECTACEAE					
Dimerella lutea (Dickson) Trevisan	Orange dimple lichen	U		a	cr
Pachyphiale fagicola (Hepp) Zwackh		R		a	cr
LECANORACEAE					
Bacidia schweinitzii (Fr. *ex* E. Michener) A. Schneider	Surprise lichen			a	cr
Lecanora hybocarpa (Tuck.) Brodo	Bumpy rim lichen			a	cr
Lecanora thysanophora R.C. Harris, ined	Maple dust lichen			a	cr
Lecanora symmicta (Ach.) Ach.	Fused rim lichen			a	cr
Mycobilimbia berengeriana (A. Massal.) Hafellner & V. Wirth	Dot lichen			a	cr
MICAREACEAE					
Micarea peliocarpa (Anzi) Coppins & R. Sant.	Dot lichen	U		a	cr
Micarea prasina Fr.	Dot lichen	U		a	cr
MONOBLASTIACEAE					
Anisomeridium polypori (Ellis & Everh.) M.E. Barr (Barr et al. 1996)		R		a	cr
MYCOCALICIACEAE					
Mycocalicium subtile (Pers.) Szat.	Stubble lichen	U		a	cr
PARMELIACEAE					
Melanelia subaurifera (Nyl.) Essl.	Abraded camouflage lichen		12	b	fo
Myelochroa aurulenta (Tuck.) Elix & Hale	Powdery axil-fringe lichen		12	b	fo
Parmelia squarrosa Hale	Bottlebrush shield lichen			a	fo
Parmelia sulcata Taylor	Hammered shield lichen		12	b	fo
Usnea subfloridana Stirton	Beard lichen	U	12	b	fr
PELTIGERACEAE					
Peltigera evansiana Gyelnik	Peppered pelt			a	fo
Peltigera praetextata (Flörke *ex* Sommerf.) Zopf	Scaly dog-lichen			a	fo
PHLYCTIDACEAE					
Phlyctis argena (Sprengel) Flotow	Whitewash lichen	U		a	cr
PHYSCIACEAE					
Buellia stillingiana J. Steiner	Common button lichen			a	cr
Phaeophyscia hirtella Essl.	Shadow lichen	R		a	fo
Phaeophyscia rubropulchra (Degel.) Essl.	Orange-cored shadow lichen		12	b	fo
Physcia adscendens (Fr.) H. Olivier	Hooded rosette lichen		12	b	fo
Physcia stellaris (L.) Nyl.	Star rosette lichen		12	b	fo
Physconia detersa (Nyl.) Poelt	Bottlebrush frost lichen		12	b	fo

Table 4, con't

Species name	Common name	ST	AR	CT	GF
PHYSCIACEAE, con't					
Rinodina degeliana Coppins	Pepper-spore lichen	R		a	cr
Rinodina efflorescens Malme	Pepper-spore lichen	R		a	cr
Rinodina excrescens Vainio	Pepper-spore lichen	R		a	cr
Rinodina glauca Ropin	Pepper-spore lichen	U		a	cr
ROCCELLACEAE					
Cresponea chloroconia (Tuck.) Egea & Torrente	Old wood lichen	R		a	cr
STRIGULACEAE					
Strigula stigmatella (Ach.) R.C. Harris		U		a	cr
TELOSCHISTACEAE					
Xanthoria fallax (Hepp) Arnold	Hooded sunburst lichen		12	b	fo
TAXONOMIC POSITION UNCERTAIN					
Lepraria lobificans Nyl.	Fluffy dust lichen			a	cr
Lepraria incana (L.) Ach.	Dust lichen			a	cr

a: P. Y. Wong, 1989.

b: Collected by R. E. Lee and B. Gaertner. Identified by R. E. Lee. Great Canadian Bio-blitz, June 19, 1999

Drawing by Susan Laurie-Bourque, from *Lichens of the Ottawa Region, 2nd ed.*

Table 5: Slimemolds and Fungi collected from the Leitrim Wetland. "Area" numbers correspond to the community map. CT = collector information.

Species name	Area	CT
DIVISION MYXOMYCOTA, (SLIME MOLDS)		
STEMONITACEAE		
Stemontis sp.	12	a
DIVISION EUMYCOTA (FUNGI)		
Subdivision Basidiomycotina		
CLASS HYMENOMYCETES		
ORDER TREMELLALES		
TREMELLACEAE		
Aporpium caryae (Schein.) Teix. & D.P. Rogers	1	a
ORDER CANTHARELLALES		
CANTHARELLACEAE		
Cantharellus lutescens Fr.	1 or 3	b
ORDER POLYPORALES		
POLYPORACEAE		
Fomes fomentarius (L.: Fr.) J. Kickx fil.	1, 12	a
Oxyporus populinus (Schumach.: Fr.) Donk	1 or 3	b
Piptoporus betulinus (Bull.: Fr.) P. Karst.	1	a,b
Polyporus varius Fr.: Fr.	1 or 3	b
Trametes pubescens (Schumach.: Fr.) Pilát	1	a
Trametes versicolor (L.: Fr.) Pilát	1	a
Trichaptum abietinum (Dickson: Fr.) Ryvarden	1	a
Trichaptum biforme (Fr.) Ryvarden	1, 12	a
Tyromyces chioneus (Fr.: Fr.) P. Karst.	1	a
CLASS GASTEROMYCETES		
ORDER AGARICALES		
HYGROPHORACEAE		
Hygrocybe conica (Scop.: Fr.) Kummer	1 or 3	b
Hygrocybe flavescens (Kauffman) Singer	1 or 3	b
Hygrocybe cantharellus (Schw.) Murrill	1 or 3	b
PAXILLACEAE		
Paxillus atrotomentosus (Batsch: Fr.) Fr.	1 or 3	b
PLUTEACEAEPLUTEACEAE		
Pluteus cervinus (Schaeff.) Kumm. Pluteus cervinus	12	a
RUSSULACEAE		
Lactarius uvidus (Fr.: Fr.) Fr.	1 or 3	b
SCHIZOPHYLLACEAE		
Schizophyllum commune Fr.: Fr.	1	a
STROPHARIACEAE		
Pholiota squarrosa (Fr.: Fr.) P. Kumm.	1 or 3	b

Table 5, con't

Species name	Area	CT
ORDER AGARICALES, con't		
TRICHOLOMATACEAE		
Pseudoarmillariella ectypoides (Peck) Singer	1 or 3	b
Lentinellus ursinus (Fr.: Fr.) Kühner	1 or 3	b
ORDER LYCOPERDALES		
LYCOPERDACEAE		
Lycoperdon pyriforme Schaeff: Pers.	1 or 3	b
Subdivision Ascomycotina		
Ascomycete CLASS PYRENOMYCETES		
ORDER SPHAERIALES		
HYPOCREACEAE		
Nectris cinnabarina (Tode: Fr.) Fr.	1	a
Isaria sp.		
CLASS DISCOMYCETES		
ORDER PEZIZALES (CUP FUNGI)		
PYRONEMATACEAE		
Scutellinia scutellata (L.) Lambotte	12	a
ORDER HELOTIALES		
GEOGLOSSACEAE		
Microglossum rufum (Schw.) Underw.	1 or 3	b
Trichoglossum sp.	1 or 3	b

a: Collected by Scott Redhead, June 19, 1999. Great Canadian Bio-blitz.
b: Collected by Richard Aaron, late summer, 2000.

Young puffball

by Aleta Karstad
from *Wild Seasons Daybook*

Table 6. Species list of Invertebrates (Excluding Insects). CT = collector information.

Taxon	Common Name	Area	CT
UNIONIDAE	UNIONID MUSSELS		
Pyganodon grandis (Say)	Common Floater	17 fc	ab
Anodontoides ferussacianus (Lea)	Cylindrical Floater	17 fc	ab
Lampsilis radiata (Gmelin)	Eastern Lamp-Mussel	17 fc	b
Lasmigona compressa (Lea)	Brook Lasmigona	17 fc	ab
CAMBARIIDAE	CRAYFISH		
Orconectes virilis (Hagen)	Northern Crayfish	17 fc	ab
Aquatic Gastropods			
PLANORBIDAE			
Helisoma trivolvus (Say)	Larger Eastern Ramshorn	4-5	a
LYMNAEIDAE			
Stagnicola elodes (Say)	Common Stagnicola	D	b
Terrestrial Gastropods			
ARIONIDAE			
Arion	Slug		c
Arion subfuscus group	Slug	1,12	d
CARYCHIIDAE			
[*Carychium riparium* Hubricht, not found in the wetland, but discussed in text]	Snail	G	c
POLYGYRIDAE			
Neohelix dentifera (Binney)	Snail		c
ZONITIDAE			
Hawaiia minuscula (Binney)			c
Striatura exigua Stimpson			c
Zonitoides arboreus (Say)			c

a = coll. & det. F. Schueler, 1997
b = coll. & det. F. Schueler, Great Canadian Bioblitz, 18-19 June 1999
c = det. F.W. Grimm , 1997-1999
d= coll. L. Consaul, Great Canadian Bioblitz, 18-19 June 1999, det. F.W. Grimm
fc = Findlay Creek
D = Ditch next to area 10.
G = this species found in Gloucester, not the Leitrim wetland, but should be looked for.
More information on the gastropods to be found in Grimm, F.W., Terrestrial Molluscs of the Mixed Wood Plain Ecozone, Ecological Monitoring and Assessment Network (EMAN) www site.

Drawing of *Neohelix dentifera*, life-sized, ventral view, by F. W. Grimm. Note the characteristic prominent tooth.

Table 7: Insects of the Leitrim Wetland Complex. ST = Status; C = common, R = rare, U=uncommon. AR = Area within the wetland, as mapped in Figure 3. CT = collector.

Species Name	Common name	ST	AR	CT
ODONATA				
Suborder Zygoptera	**Damselflies**			
CALOPTERYGIDAE				
Calopteryx aequabilis Say	River Jewelwing		17	b
Calopteryx maculata Beauvois	Ebony Jewelwing		17	b
COENAGRIONIDAE				
Amphagrion saucium Burmeister	Eastern Red Damsel		10,12	b,d
Chromagrion conditium Hagen	Aurora Damsel		17,12	b,d
Coenagrion resolutum Hagen	Taiga Bluet		12	d
Enallagma ebrium Hagen	Marsh Bluet		12	d
Enallagma hageni Walsh	Hagen's Bluet		12	d
Enallagma cyathigerum vernale Gloyd	Spring Bluet		12	d
Ischnura verticalis Say	Eastern Forktail		12	d
Ischnura posita posita Hagen	Fragile Forktail	R	12	d
Nehalennia irene Hagen	Sedge Sprite		12	d
Suborder Anisoptera	**Dragonflies**			
CORDULEGASTRIDAE				
Zoraena diastatops Sélys	Delta-spotted Spiketail		12	d
AESCHNIDAE				
Aeshna tuberculifera Walker	Black-tipped Darner		12	d†
CORDULIIDAE				
Epicordulia princeps Hagen	Prince Baskettail		12	d
Tetragoneuria canis Mclachlan	Beaverpond Baskettail		12	d†
LIBELLULIDAE				
Erythemis simplicicollis Say	Eastern Pondhawk		12	d
Leucorrhinia intacta Hagen	Dot-tailed Whiteface		12	d
Leucorrhinia proxima Calvert	Red-waisted Whiteface		12	d
Libellula julia Uhler	Chalk-fronted Corporal		12	d
Libellula lydia Drury	Common Skimmer		12	d
Libellula pulchella Drury	Twelve-spotted Skimmer		12	d
Libellula quadrimaculata Linnaeus	Four-spotted Skimmer		12	d
Sympetrum vicinum Hagen	Yellow-legged meadowhawk		12	d†
ORTHOPTERA				
TETRIGIDAE				
Tetrix ornata Say	Pygmy Grasshopper		12	b
HEMIPTERA	TRUE BUGS			
LYGAEIDAE	SEED BUGS			
Lygaeus kalmii Stål				e
COLEOPTERA				
ANTHICIDAE	ANTLIKE FLOWER BEETLES			
Notoxus anchora Hentz	Antlike flower beetle			a
CARABIDAE	GROUND & TIGER BEETLES			
Amara nr. patruelis Dejean				f
Bembidion quadrimaculatum L.				f
Cicindela repanda Dejean	tiger beetle		12	b

Table 7, cont'd

Species Name	Common name	ST	AR	CT
Cicindela sexguttata Fabricius	tiger beetle			e
Harpalus somnulentus Dejean				f
Lebia moesta LeConte				f
Poecilius lucublandus Say				f
Stenololophus fulginosus Dejean				f
CERAMBYCIDAE	LONG-HORNED BEETLES			
Aegomorphus modestus Gyllenhal	Long-horned Beetle		12	c
Saperda vestita Say	Linden Borer		12	c
Tetraopes tetraophthalmus Forst.				e
CHRYSOMELIDAE	LEAF BEETLES			
Labidomera clivicollis Kirby				e
Chelymorpha cassidae Fabricius	Tortoise beetle			e
Psylloides sp.				e
Haltica sp.	Flea beetle			e
Chaetocnema sp.				e
Oedionyches sp.				e
CRYPTOPHAGIDAE	SILKEN FUNGUS BEETLES			
Anchicera sp.				e
CURCULIONIDAE	WEEVILS			
sp.				e
LAMPYRIDAE	FIREFLIES			
*Ellychina corrusca** Linnaeus	Lightning Bug		17	b
LANGURIIDAE	LIZARD BEETLES			
sp.	Lizard Beetle		17	b
LATHRIIDAE	MINUTE BROWN SCAVENGER BEETLES			
sp.				e
MORDELLIDAE	TUMBLING FLOWER BEETLES			
Mordellistena pustulata Melsheimer				e
Mordellistena aspera Melsheimer				e
Mordellistena andreae LeConte				e
Mordella marginata Melsheimer				e
SCARABAEIDAE	SCARAB BEETLES			
Macrodactylis subspinosus Fabricius				e
STAPHILINIDAE	ROVE BEETLES			
sp.				e
LEPIDOPTERA				
HESPERIIDAE	TRUE SKIPPERS			
Carterocephalus palaemon Pallas	Arctic Skipper			h
Erynnis icelus Scudder and Burgess	Dreamy Duskywing			h
Euphyes vestris Boisduval	Dun Skipper			h
Poanes hobomok Harris	Hobomok Skipper			h
Polites mystic Edwards	Long dash Skipper		1	b,h
Polites themistocles Latreille	Tawney-edged Skipper			h
Thymelicus lineola Ochsenheimer	European Skipper		10	b,h
LYCAENIDAE	GOSSIMER WINGS			
Callophrys henrici Grote and Robinson	Henry's Elfin			h
Celastrina ladon Cramer	Spring Azure			h

Table 7, cont'd

Species Name	Common name	ST	AR	CT
Glaucopsyche lygdamus Doubleday	Silvery Blue			h
Satyrium acadica Edwards	Acadian Hairstreak			h
Satyrium calanus Hübner	Banded Hairstreak			h
NYMPHALIDAE	BRUSH-FOOTED BUTTERFLIES			
Boloria bellona Fabricius	Meadow Fritillary			h
Chlosyne harrisii Scudder	Harris' Checkerspot			h
Limenitis archippus Cramer	Viceroy			h
Limenitis arthemis Drury	White admiral			h
Nymphalis milberti Godart	Milbert's Tortoise Shell		10	b,h
Phyciodes cocyta	Northern Crescent		17	b
Phyciodes tharos Drury	Pearl Crescent			h
Polygonia comma Harris	Comma			h
Polygonia progne Cramer	Gray Comma			h
Speyeria cybele Fabricius	Great Sprangled Fritillary			h
Vanessa atalanta Linnaeus	Red Admiral			h
DANAIDAE				
Danaus plexippus Linnaeus	Monarch		10	b
PIERIDAE	WHITES and SULFURS			
Colias interior Scudder	Pink-edged Sulfur			b
Colias philodice Godart	Common Sulfur			h
Pieris napi Linnaeus	Veined White			h
Pieris rapae Linnaeus	Cabbage White			h
SATYRIDAE	SATYRS			
Cercyonis pegala Fabricius	Wood Nymph			h
Coenonympha inornata Edwards	Ringlet			h
Euptychia cymela Cramer	Little Wood Satyr			h
Lethe anthedon Clark	Northern Pearly Eye			h
Lethe eurydice Johannson	Eyed Brown			h
DIPTERA				
PTYCHOPTERIDAE	PHANTOM CRANE FLIES			
Bittacomorpha clavipes Fabricius		C	9	a
Ptychoptera quadrifasciata Say		C	3	a
LIMONIIDAE	SMALL–PALPED CRANE FLIES			
Dicranomyia frontalis Staeg.		C	9,3	a
Dicranomyia sp.			9,3	a
Elephantomyia westwoodi O.S.			3	a
Erioptera (*Erioptera*) *chlorophylla* O.S.		U	3	a
Erioptera (*Mesocyphona*) *caloptera* Say		C	9,3	a
Erioptera (*Ilisia*) *venusta* O.S.		U	9	a
Geronomyia canadensis Westwood			9	a
Gonomyia (*Leiponeura*) *sulphurella* O.S.		U	9	a
Limnophila (*Dicranophragma*) *fuscovaria* O.S.		C	9,3	a
Metalimnobia quadrimaculata cinctipes Say		C	3	a

Table 7, cont'd

Species Name	Common name	ST	AR	CT
Molophilus pubipennis O.S.			3	a
Molophilus sp.			9,3	a
Pseudolimnophila contempta O.S.		C	3	a
Pseudolimnophila noveboracensis Alexander				a
PEDICIIDAE	CARNIVOROUS CRANE FLIES			
Tricyphona inconstans O.S.		C	3	a
TIPULIDAE	LONG-PALPED CRANE FLIES			
Dolichopeza (*Oropeza*) *subalbipes* Johnson		C	3	a
Nephrotoma breviorcornis Doane			3	a
Nephrotoma ferruginea Fabricius		C	3	a
Nephrotoma macrocera Say			3	a
Tipula (*Schummelia*) *hermannia* Alexander		C	3	a
Tipula (*Trichotipula*) *oropezoides* Johnson			3	a
Tipula (*Yamatotipula*) *sulphurea* Doane			3	a
HYMENOPTERA				
POMPILIDAE	SPIDER WASPS			
Pompilinae sp.				e
VESPIDAE	TRUE WASPS			
sp. 1				e
sp. 2				e
PEMPHREDONIDAE	APHID WASPS			
Pseninae				e
CRABRONIDAE	CRABRONID WASPS			
Larrinae sp.				e
COLLETIDAE				
?Hylaeus sp.	Yellow-faced bee			e
ANDRENIDAE	ANDRENID BEES			
Andrena sp.				e
HALICTIDAE	SWEAT BEES			
sp.				e
ANTHOPHORIDAE				
Anthophroinae sp.	Digger bee			e
APIDAE	BUMBLE BEES & HONEY BEES			
Apis mellifera Linnaeus	honey bee			e
Bombus sp.	bumble bee			e
BRACONIDAE	BRACONID WASPS			
Chelonus sp.				e
Ascogaster sp.				e
Dacnusa sp.				e
Leptodrepana sp.				e
Alyssinae sp.				e

Table 7, cont'd

Species Name	Common name	ST	AR	CT
CHARIPIDAE	CHARIPID WASPS			
sp.				e
DIAPRIIDAE	DIAPRIID WASPS			
Basalys columbianus Ashmead				g
SCELIONIDAE	SCELIONID WASPS			
Trimorus nr. columbianus Ashmead				g
Trimorus sp. nov.				g
Calliscelio marlatti Ashmead				g
Psilantares reticulatus Fauts				g
CERAPHRONIDAE	CERAPHRONID WASPS			
Aphagnamus sp.				g
CHALCIDIODEA	CHALCID WASPS			
sp. 1				e
sp. 2				e
CHALCIDIDAE				
Spilochalcis sp.				e
Chalcis sp.				e
MYMARIDAE	FAIRYFLIES			
Polynaema sp. 1				i
Polynaema sp. 2				i
Anagris sp.				i

a: Fenja Brodo, June 18 & 19, 1999. Great Canadian Bio-blitz.
b: William Godsoe, June 18 & 19, 1999. Great Canadian Bio-blitz.
c: Robert E. Lee and Barbara Gaertner, June 19, 1999. Great Canadian Bio-blitz.
d: Raymond Hutchinson and Benoît Ménard, June 19, 1999. Great Canadian Bio-blitz.
e: Karen Hamilton, June 19, 1999. Great Canadian Bio-blitz
f: Collected by Karen Hamilton, June 19, 1999. Great Canadian Bio-blitz. Identified by Henri Goulet.
g: Collected by Karen Hamilton, June 19, 1999. Great Canadian Bio-blitz. Identified by Lubomir Masner.
h: Ross Layberry. Pre-1990; collected from the fringes of the wetland over a 10 year period (see Dugal, 1993).
i: Collected by Karen Hamilton, June 19, 1999. Great Canadian Bio-blitz. Identified by John Huber
*: Identified by default; this is the only species in this genera known to occur in Ontario (Bousquet, 1991).
†: Identified by larvae alone.

by Aleta Karstad, from *Wild Seasons Daybook*

Table 8. Species list of Vertebrates in Leitrim wetland. CT = collector information.

Taxon	Common Name	Area	CT
Fish			
CATOSTOMIDAE	SUCKERS		
Catostomus commersoni (Lacopède)	White Sucker	4-5	b
CYPRINIDAE	MINNOWS		
Hybognathus hankinsoni Hubbs	Brassy Minnow	4-5	b
Luxilus cornutus (Mitchill)	Common Shiner	4-5	b
Phoxinus eos (Cope)	Northern Redbelly Dace	D,4-5	b
Pimephales notatus (Rafinesque)	Bluntnose minnow		a
Semotilus atromaculatus (Mitchill)	Creek Chub		a
GASTEROSTEIDAE	STICKLEBACKS		
Culaea inconstans (Kirtland)	Brook Stickleback	D,4-5	ab
UMBRIDAE	MUDMINNOWS		
Umbra limi (Kirtland)	Central Mudminnow	D,4-5	ab
Amphibians			
BUFONIDAE	TOADS		
Bufo americanus Holbrook	American Toad	D	cd
HYLIDAE	TREEFROGS		
Hyla versicolor LeConte	Tetraploid Gray Treefrog	10*,D	cd
Pseudacris crucifer (Wied)	Spring Peeper		c
RANIDAE	TRUE FROGS		
Rana clamitans Latreille	Green Frog	10*,D	cd
Rana pipiens Schreber	Northern Leopard Frog	D	cd
Rana sylvatica LeConte	Wood Frog		c
Reptiles			
CHELYDRIDAE	TURTLES		
Chelydra serpentina (L.)	Snapping Turtle		c
COLUBRIDAE	COLUBRID SNAKES		
Thamnophis sirtalis (L.)	Common Garter Snake		c
Mammals			
CANIDAE	CANIDS		
Canis latrans Say	Coyote		
Vulpes vulpes (L.)	Red Fox		c
CASTORIDAE	BEAVER		
Castor canadensis Kuhl	Beaver	D	cd
CERVIDAE	DEER		
Odocoileus virginianus (Zimmermann)	Whitetail Deer	17	cd
CRICETIDAE	MICE, RATS & VOLES		
Microtus pennsylvanicus (Ord)	Meadow Vole		
Ondatra zibethicus (L.)	Muskrat	17	d
ERETHIZONTIDAE	PORCUPINE		
Erethizon dorsatum (L.)	Porcupine		c

Table 8, cont'd. Taxon	Common Name	Area	CT
LEPORIDAE	HARES & RABBITS		
Lepus americanus Erxleben	Snowshoe Hare		
MUSTELIDAE	WEASELS, SKUNKS		
Lontra canadensis (Schreber)	River Otter	17	d
Mephitis mephitis (Schreber)	Striped Skunk	17	d
Mustela erminea (L.)	Short-tailed Weasel		
Mustela vison Schreber	Mink		cd
PROCYONIDAE	RACCOONS		
Procyon lotor (L.)	Raccoon, tracks;	17	d
SCIURIDAE	SQUIRRELS ETC.		
Marmota monax (L.)	Woodchuck	R	d
Sciurus carolinensis Gmelin	Grey Squirrel	4-5	d
Birds			
ARDEIDAE	HERONS		
Ardea herodias L.	Great Blue Heron	3,12	eg
Botaurus lentiginosus (Rackett)	American Bittern		
Butorides striatus (L.)	Green Heron		
ANATIDAE	DUCKS		
Aix sponsa (L.)	Wood Duck		
Anas platyrhynchos L.	Mallard		
Anas rubripes Brewster	Black Duck		
ACCIPITRIDAE	HAWKS		
Accipiter cooperii (Bonaparte)	Cooper's Hawk		
Accipiter gentilis (L.)	Northern Goshawk		
Accipiter striatus Veillot	Sharp-shinned Hawk		
Buteo lineatus (Gmelin)	Red-shouldered Hawk		
Buteo platypterus (Gmelin)	Red-tailed Hawk	12	f
Buteo platypterus (Vieillot)	Broad-winged Hawk		c
Circus cyaneus (L.)	Northern Harrier	10*	g
PHASIANIDAE	PARTRIDGES		
Bonasa umbellatus (L.)	Ruffed Grouse		
RALLIDAE	RAILS		
Rallus limicola (Vieillot)	Virginia rail		
CHARADRIIDAE	PLOVERS		
Charadrius vociferus L.	Killdeer	D,10*	de
SCOLOPACIDAE	SANDPIPERS		
Gallinago gallinago (L.)	Common Snipe		
Scolopax minor Gmelin	Woodcock		
COLUMBIDAE	DOVES		
Zenaida macroura (L.)	Mourning Dove	12	e
CUCULIDAE	CUCKOOS		
Coccyzus erythropthalmus (Wilson)	Black-billed Cuckoo		
Coccyzus americanus (L.)	Yellow-Billed Cuckoo		
STRIGIDAE	OWLS		
Aegolius acadicus (Gmelin)	Northern Saw-whet Owl		
Aegolius funereus (L.)	Boreal Owl		
Asio flammeus (Pontoppidan)	Short-eared Owl		

Table 8, cont'd. Taxon	Common Name	Area	CT
Asio otus (L.)	Long-eared Owl		
Bubo virginianus (Gmelin)	Great Horned Owl		
Otus asio (L.)	Eastern Screech Owl		
Strix nebulosa Forster	Great Gray Owl		
Strix varia Barton	Barred Owl		
Surnia ulula (L.)	Northern Hawk-Owl		
ALCEDINIDAE	KINGFISHERS		
Ceryle alcyon (L.)	Belted Kingfisher		
PICIDAE	WOODPECKERS		
Colaptes auratus (L.)	Common Flicker	12	f
Picoides pubescens (L.)	Downy Woodpecker		
Picoides villosus (L.)	Hairy Woodpecker	12	f
Dryocopus pileatus (L.)	Pileated Woodpecker	12	cf
TYRANNIDAE	FLYCATCHERS		
Contopus virens (L.)	Eastern Wood Peewee	12	f
Empidonax alnorum Brewster	Alder Flycatcher		
Empidonax minimus (Baird & Baird)	Least Flycatcher	12	f
Empidonax traillii (Audubon)	Willow Flycatcher		
Myiarchus crinitus (L.)	Great Crested Flycatcher	12	f
Saynoris phoebe (Latham)	Eastern Phoebe		
Tyrannus tyrannus (L.)	Eastern Kingbird		
VIREONIDAE	VIREOS		
Vireo gilvus (Vieillot)	Warbling Vireo		
Vireo olivaceus (L.)	Red-eyed Vireo	12,13	fg
CORVIDAE	JAYS & CROWS		
Corvus brachyrhynchos Brehm	Common Crow	3, 10*	ef
Cyanocitta cristata (L.)	Blue Jay		
HIRUNDINIDAE	SWALLOWS		
Hirundo rustica L.	Barn Swallow	10*	g
Tachycineta bicolor (Vieillot)	Tree Swallow	10*,12	fg
PARIDAE	CHICKADEES		
Parus atricapillus L.	Blackcap Chickadee	12	cf
SITTIDAE	NUTHATCHES		
Sitta canadensis L.	Red-breasted Nuthatch		
Sitta caroliniensis Latham	White-breasted Nuthatch		
CERTHIIDAE	CREEPERS		
Certhia americana Bonaparte	Brown Creeper		
TROGLODYTIDAE	WRENS		
Cistothorus platensis (Latham)	Sedge Wren		
Troglodytes aedon Vieillot	House Wren		
Troglodytes troglodytes (L.)	Winter Wren	1,12,13	eg
MUSCICAPIDAE	THRUSHES		
Catharus fuscescens (Stephens)	Veery	3,12,13	efg
Hylocichla mustelina (Gmelin)	Woodthrush	12	ef
Turdus migratorius (L.)	Robin	10*,12	dfg
MIMIDAE	MIMIC THRUSHES		
Dumetella caroliniensis (L.)	Catbird		
Toxostoma rufum (L.)	Brown Thrasher		

Table 8, cont'd. Taxon	Common Name	Area	CT
BOMBYCILLIDAE	WAXWINGS		
Bombycilla cedrorum Vieillot	Cedar Waxwing	12	f
PARULIDAE	WARBLERS		
Dendroica coronata (L.)	Yellow-rumped Warbler		
Dendroica pensylvanica (L.)	Chestnut-sided Warbler		
Dendroica petechia (L.)	Yellow Warbler	12	g
Dendroica virens (Gmelin)	Black-throated Green Warbler	12	g
Geothlypis trichis (L.)	Common Yellowthroat	10,12	efg
Mniotilta varia (L.)	Black-and-white Warbler	13	g
Oporornis philadelphia (Wilson)	Mourning Warbler		
Seiurus aurocapillus (L.)	Ovenbird	3,13	eg
Seiurus novaboracensis (Gmelin)	Northern Waterthrush	12	f
Setophaga ruticilla (L.)	American Redstart		
Vermivora chrysoptera (L.)	Golden-winged Warbler		
Vermivora ruficapilla (Wilson)	Nashville Warbler		
Wilsonia canadensis (L.)	Canada Warbler		
THRAUPIDAE			
Piranga olivacea (Gmelin)	Scarlet Tanager	12,21	eg
ICTERIDAE	BLACKBIRDS & ORIOLES		
Agelaius phoeniceus (L.)	Red-winged Blackbird	10*	e
Dolichonyx oryzivorus (L.)	Bobolink	10*	e
Icturus galbula (L.)	Baltimore oriole	12	fg
Molothrus ater (Boddaert)	Brown-headed Cowbird	12	f
Quiscalus quiscula (L.)	Common Grackle		
Sturnella magna (L.)	Eastern Meadowlark		
FRINGILLIDAE	FINCHES		
Carduelis tristis (L.)	American Goldfinch	12	e
Carpodacus purpureus (Gmelin)	Purple Finch		
CARDINALIDAE			
Cardinalis cardinalis (L.)	Cardinal		
Passerina cyanea (L.)	Indigo Bunting		
Pheucticus ludovicianus (L.)	Rose-breasted Grosbeak	12	f
EMBERIZIDAE	SPARROWS		
Melospiza georgiana (Latham)	Swamp Sparrow	12	f
Melospiza melodia (Wilson)	Song Sparrow	10*,12	ef
Passerculus sandwichensis (Gmelin)	Savannah Sparrow	10*	g
Spizella pallida (Swainson)	Clay-coloured Sparrow		
Spizella passerina (Bechstein)	Chipping Sparrow		
Spizella pusilla (Wilson)	Field Sparrow		
Zonotrichia albicollis (Gmelin)	Whitethroat Sparrow	10*,12,13	defg
Recorded only from uplands beside the Leitrim Wetlands			
MUSCICAPIDAE	THRUSHES		
Sialia sialis (L.)	Eastern Bluebird	10*	d
PHASIANIDAE	PARTRIDGES		
Perdix perdix (L.)	Grey Partridge	10*	d
MIMIDAE	MIMIC THRUSHES		

Table 8, cont'd. Taxon	Common Name	Area	CT
Mimus polyglottos (L.)	Northern Mockingbird		
LANIIDAE	SHRIKES		
Lanius ludovicianus L.	Loggerhead Shrike		
EMBERIZIDAE	SPARROWS		
Ammodramus henslowii (Audubon)	Henslow's Sparrow		

a = collected and det. N. Alfonso (Dugal 1993); b = collected by F. Schueler or A. Phelps, det. by Anne Phelps, Great Canadian Bio-blitz, June 19, 1999; c = det. by F. Schueler or A. Karstad 1995, 1997; d = det. by F. Schueler, Great Canadian Bio-blitz, 18-19 June 1999; e = det. by S. & H. Thomson, Great Canadian Bio-blitz, 18 June 1999; f = det. by R. Lee & B. Gaertner, Great Canadian Bio-blitz, 19 June 1999; g = det. by L. Consaul, Great Canadian Bio-blitz, 18-19 June 1999
Those not coded are other records from Dugal 1993; D = ditch between areas 9&12.; 10* = siting in fields south of area 10; hq = near headquarters; R = in vicinity of radio tower, near area 10. Order of bird families updated from AOU Check-list, 7th Edition, at http://pica.wru.umt.edu/AOU/birdlist.HTML

White-throated Sparrow
by Aleta Karstad
from *Canadian Nature Notebook*

EASTERN ONTARIO BIODIVERSITY MUSEUM

LECTURE SERIES - WINTER 2001

First Thursday of each month

January 4 7:30 pm	Small Mammals of Eastern Ontario	Donald A. Smith
February 1 7:30 pm	Nature's Frozen Vertebrates	Ken Storey
March 1 7:30 pm	Journey to the Centre of the Bog — Quest for the Spotted Turtle (in Mer Bleue)	David Seburn

Admission: EOBM members free, individuals $5, families $10
Location: 215 Sanders St. Kemptville ON
Directions: south on Rideau St. from intersection of Hwy. 43 and old Hwy. 16 (County Rd. 44), take left fork, Sanders St. Raina's Northside Plaza on left).
Phone: 258-3415, e-mail: *museum@eobm.ca* ¤

Coming Events

arranged by the Excursions & Lectures Committee.
For further information,
call the Club number (722-3050) after 10 a.m.

Times stated for excursions are departure times. Please arrive earlier; leaders start promptly. If you need a ride, don't hesitate to ask the leader. Restricted trips will be open to non-members only after the indicated deadlines.

ALL OUTINGS: Please bring a lunch on full-day trips and dress according to the weather forecast and the activity. Binoculars and/or spotting scopes are essential on all birding trips. Unless otherwise stated, transportation will be by car pool.

REGISTERED BUS TRIPS: Make your reservation for Club bus excursions by sending a cheque or money order (payable to The Ottawa Field-Naturalists' Club) to E.M. Dickson, 2037 Honeywell Avenue, Ottawa, Ontario K2A 0P7, at least ten days in advance. Include your name, address, telephone number and the name of the outing. Your cooperation is appreciated by the Committee so that we do not have to wait to the last moment to decide whether a trip should be cancelled due to low registration. We also wish to discourage postponing the actual payment of bus fees until the day of the event.

EVENTS AT THE CANADIAN MUSEUM OF NATURE: The Club is grateful to the Museum for their cooperation, and thanks the Museum for the use of these excellent facilities. Club members must be prepared to show their membership cards to gain access for Club functions after regular museum hours.

BIRD STATUS LINE: Phone 860-9000 to learn of recent sightings or birding potential in the Ottawa area. To report recent sightings call Michael Tate at 825-1231. This service is run on behalf of the Birds Committee and is available to members and non-members.

Le Club des Ornithologues de l'Outaouais has a similar service, in French, run by Daniel St-Hilaire at 778-3413 and the Bird Status Line is 778-0737.

Sunday
7 January

WINTER BIRDING AT THE CORNWALL POWER DAM
Leader: Bernie Ladouceur
Meet: Elmvale Shopping Centre, northeast corner of the parking lot, St. Laurent Blvd. at Smyth Road.
This full-day outing should allow us to see overwintering gulls, waterfowl and seasonal species frequenting the Moses-Saunders Power Dam. Bring a lunch, a warm drink and heavy winter clothing. It is most important to bring your passport, Canadian landed immigration document or American visa, because entry to the birding area is only possible now from the American side of the border. Transportation will be by private car. (Continued)

PLEASE REGISTER BY JANUARY 1 AT THE CLUB NUMBER (722-3050) so that you can be notified if alternate arrangements need be made.

Tuesday **9 January** **7:30 p.m.**	**OFNC 122nd ANNUAL BUSINESS MEETING** **Meet:** Auditorium, Canadian Museum of Nature, Metcalfe and McLeod Streets. The Council for 2001 will be elected at this meeting and a brief review of the activities of the Club during the year 2000 will be given, as well as a statement of the Club's finances. After the official business, The Birds Committee will give us a presentation about their many interesting projects and activities.

Saturday **13 January** **1:00-5:00 p.m.**	**INTRODUCTION TO BIRDWATCHING, A WORKSHOP** **Leader:** Roy John **Meet:** Room 17, Canadian Museum of Nature, Metcalfe and McLeod Streets. At this workshop one will learn some of the basic strategies for observing birds in the field. This four-hour session will be based on material used in the highly successful BirdQuest program. There will be a modest charge to cover the cost of the handouts ($10 or less). Non-members also welcome. PLEASE CALL THE CLUB NUMBER (722-3050) before January 1, 2001, to indicate your interest, so we can have an idea of the potential numbers. Further details will be given to registrants later.

Tuesday **13 February** **7:30 p.m.** **Social** **8:00 p.m.** **Formal program**	**OFNC MONTHLY MEETING** **THE REWARDS OF TRAVELLING TO NUNAVUT** **Speakers:** Robina Bennett and Betty Campbell **Meet:** Auditorium, Canadian Museum of Nature, Metcalfe and McLeod Streets. Beyond the treeline there is a huge area of Canada that many people do not think of when they are planning trips. It is a land of stark beauty, in which living creatures, both plant and animal, have adapted to a harsh environment. Remarkably, this land has also seen human habitation for 4000 years. Come and enjoy Robina and Betty's photographs and impresions from their trips to Wager Bay and Baffin Island in the new territory of Nunavut.

Friday
Date to be decided
(mid- to late March)

MUDPUPPY NIGHT IN OXFORD MILLS: AN EVENING EXCURSION WITH THE EASTERN ONTARIO BIODIVERSITY MUSEUM

Leaders: Fred Schueler and Philip Martin

On most winter nights 20-50 Mudpuppies (*Necturus maculosus*) can be observed walking around actively on the flat bedrock bottom below the old mill dam at Oxford Mills. The success of this outing is highly dependent on low temperatures and water levels. The trip is limited to the first 20 to REGISTER WITH THE CLUB NUMBER (722-3050) by March 1.

The meeting place, in the vicinity of Kemptville, and other pertinent details will be given later to registrants. Rubber boots, a strong flashlight and a dipnet (if you have one) are recommended. Children are welcome. You can bring a hot drink or join the leaders for a beverage and/or dessert in a nearby restaurant (The Brigadoon).

Saturday
10 March
8:00 a.m.

WINTER RAPTORS OF THE OTTAWA AREA

Leader: Ken Allison and Bernie Ladouceur

Meet: Lincoln Fields Shopping Centre, northeast corner of the parking lot, Richmond Road at Assaly Road.

This long half-day outing will be in quest of various species of hawks and owls that may be frequenting certain fields and woodlots in the Ottawa area. Be sure to wear warm clothing, and bring a snack and a hot drink.

Tuesday
13 March
7:30 p.m.
Social

8:00 p.m.
Formal program

OFNC MONTHLY MEETING

ARCTIC AND ANTARCTIC CONTRASTS

Speakers: Fran Goodspeed and Norma Johnson

Meet: Auditorium, Canadian Museum of Nature, Metcalfe and McLeod Streets.

Fran and Norma have travelled widely to a variety of places in the Arctic and Antarctic over a 20-year span. The absence of flowering plants and land mammals in the Antarctic mainland is compensated for by the greater accessibility of huge colonies of penguins and other wildlife in the seas and outlying islands. Although the biodiversity in the Arctic is greater, the wildlife is more widely distributed and harder to observe over such a vast area. This exciting lecture affords a rare opportunity to compare the salient features of two remote areas that are similar in climate.

Saturday
24 March
9:00 a.m.

"NUDE SHOW": TREES AND BUSHES IN LATE WINTER
Leader: Albert Dugal
Meet: Entrance gate to the Britannia Filtration Plant on Cassels Road.
It is often difficult to identify woody plants when the leaves are no longer available. This is an excellent opportunity to learn the characteristics of our local trees and bushes in winter as well as to explore a local conservation area. The outing is limited to the first 15 members to REGISTER WITH THE CLUB NUMBER (722-3050) by March 20th.

Sunday
1 April
6:30 a.m.
to
6:30 p.m.

BUS EXCURSION: SPRING BIRDING AT PRESQU'ILE
Leaders: Roy John and Monty Brigham
Meet: Lincoln Fields Shopping Centre, northeast corner of the parking lot, Richmond Road at Assaly Road.
Cost: $30.00 (PLEASE REGISTER EARLY; see the introduction to Coming Events for information.)
The Club's traditional spring outing to Presqu'ile Provincial Park offers an ideal opportunity to study the diverse assortment of waterfowl that congregate in the surrounding waters during their northward migration. Transportation will be by a comfortable motorcoach equipped with washroom. **Be sure to set your clock forward one hour Saturday evening.**

Wednesday
4 April
7 a.m.

SPRING BIRDING ALONG THE FLOODPLAINS OF BEAR BROOK AND THE SOUTH NATION RIVER
Leader: Bruce Di Labio
Meet: Elmvale Acres Shopping Centre, northwest corner of the parking lot at the junction of St. Lawrence Boulevard and Smyth Road.
This is a midweek all-day trip to view ducks, swans and other waterbirds. Please register at the Club number(722-3050) so that participants may be informed if alternate arrangements have to be made.

Saturday **7 April** **9:30 p.m. to** **1:30 a.m.**	**EARLY MORNING BIRDS AND AMPHIBIANS** **Leaders:** Bernie Ladouceur and Tony Beck **Meet:** Tim Horton Donuts, south side of Robertson Road (i.e., Old Hwy. 7) between the Richmond Road turnoff and Moodie Drive in Bells Corners.
Rain (or wind) dates: Sunday **8 April** **7:30 p.m to** **11:30 p.m.** **or** **(Good) Friday** **13 April** **9:30 p.m. to** **1:30 a.m.**	Once again, participants have an opportunity to locate and identify several nocturnal birds and amphibians, such as the Great Horned Owl, Barred Owl, Eastern Screech Owl, American Woodcock, Common Snipe, Ruffed Grouse, Chorus Frog, Spring Peeper, Wood Frog and the Leopard Frog. Possible areas to be visited include Richmond and Munster or other areas south and/or west of Bell's Corners. The outing is limited to the first 25 individuals to REGISTER WITH THE CLUB NUMBER (722-3050) by April 5. Please leave your phone number in case the trip is postponed (see above).

Tuesday **10 April** **7:30 p.m.** **Social** **8:00 p.m.** **Formal program**	**OFNC MONTHLY MEETING** **THE LEITRIM WETLAND** **Speaker:** Albert Dugal **Meet:** Auditorium, Canadian Museum of Nature, Metcalfe and McLeod Streets. The Leitrim Wetland, occupying some 400 hectares in south Ottawa is the remnant of a much larger wetland area that extended well to the east of the present-day Bank Street, and is now threatened by further development. Within the boundaries of this complex ecosystem lies a broad spectrum of moisture-loving plant communities, including a variety of woodlands and a fen. Some of the oldest trees in the Ottawa District occur here: ancient cedars, hemlocks, White Pines and larches, some up to 250 years old. The wetland is also home to over 200 species of regionally significant plants, at least 90 species of resident or breeding birds and a variety of other animals and insects that have not been adequately studied. Albert will show why it is necessary to preserve this wetland and what steps could be taken to attract the public to enjoy it and take an interest in its well being.

Sunday
22 April
1-4 p.m.

ONTARIO BREEDING BIRD ATLAS WORKSHOP
Meet: The Fletcher Wildlife Garden.
Join Mike Cadman for a workshop and information session on the upcoming Ontario Breeding Bird Atlas project. Participants will be given training in the following areas:
- how to conduct point counts
- how to collect breeding evidence
- how to use topographical maps
- song identification
- data entry and summary using the atlas web page
- GPS units (preferred models, costs, applications)
- significant species and colonial species (finding them and filling in data forms).

Information packages will be handed to all volunteers at this time.
PLEASE NOTE: This meeting replaces the meeting of March 21, mentioned in the last issue of *Trail & Landscape*.
For more information: Christine Hanrahan 798-1620, *vanessa@magma.ca*

Friday
27 April
7:30 p.m.

OFNC SOIREE WINE AND CHEESE PARTY AND ANNUAL AWARDS CEREMONY
Meet: Unitarian Church Hall, 30 Cleary Avenue.
See the Centrefold for further details.

Sunday
29 April
6:30 a.m.
to
6:30 p.m.

BUS EXCURSION: HAWKS ALOFT AT DERBY HILL
Leaders: Bernie Ladouceur and Ken Allison
Meet: Lincoln Fields Shopping Centre, northeast corner of the parking lot, Richmond Road at Assaly Road.
Cost: $30.00 (PLEASE REGISTER EARLY; see the introduction to Coming Events for information.)
When weather conditions are favourable, the spectacle of thousands of hawks migrating over Derby Hill, New York, is an amazing phenomenon well worth the long bus ride. Please bring proof of citizenship for entry into the United States. Optical equipment in new condition should be registered with Canada customs in advance of the trip. The excursion will be cancelled on the day before if the weather forecast for the eastern end of Lake Ontario is particularly unfavourable. You will be notified of any change of plan. Transportation will be by a comfortable motorcoach equipped with washroom.

Sunday
29 April
9:30 a.m.

LICHENS IN OUR LANDSCAPE
Leader: Ernie Brodo
Meet: Lincoln Fields Shopping Centre, northeast corner of the parking lot, Richmond Road at Assaly Road.
Join Ernie on a lichen-hunting ramble in Blakeney, Ontario (just north of Almonte), the site of last year's Bio-blitz. Ernie will point out the surprisingly diverse lichen flora on the trees, rocks and soil and will talk about factors influencing habitat preferences among lichens. Bring a hand lens or some magnifier (8-10×is best). The walk will take about three hours, so also bring a light lunch. In case of heavy rain, the trip will be postponed (call 723-2054 if weather is in question).

Thursday
10 May
to
Sunday
13 May

SPRING EXCURSION TO POINT PELEE
Your Club, through New Dimensions Tours, is offering an excursion to Point Pelee to observe birds and other interesting aspects of natural history. As an added attraction, a full day (Saturday) will be spent at nearby Rondeau Provincial Park, an area widely acknowledged for its biodiversity. Point Pelee National Park is a fascinating blend of marsh, beach, fields and mature Carolinian forest located at the southernmost tip of mainland Canada. Its strategic position along the migratory corridors has led to its international reputation as perhaps the best spot in North America to view the northern migration of birds. Hordes of naturalists arrive each spring to observe many of the more than 300 species of birds (including 41 species of warblers) that have been recorded in the Park. It is possible to tally over 100 species in a single day during the peak of spring migration. Join your fellow Club members in this naturalists' paradise.
Cost is $375.00 per person, based on two persons per room. Prices quoted include all taxes. There is no single room rate available. **Please note that these prices include bus transportation and accommodation but not meals.**
Accommodation will be at the Comfort Inn by Journey's End Motel in Leamington, a mere 10 km from the Park entrance.
Meals will be provided at nearby restaurants with breakfast tentatively scheduled for 5-5:30 a.m. and dinner for 6:30 p.m. Meals will be paid for individually. Box lunches will be provided on Friday, Saturday and Sunday.

Tentative Itinerary

Thursday 10 May.
Leave Ottawa 6:00 a.m., stopover at Stoney Point in the afternoon and arrive in Leamington around 6:30 p.m.
Friday 11 May.
Breakfast between 5-5:30 a.m.; depart for Point Pelee National Park at 5:45 a.m.; arrive back at the motel by 6:00 p.m. Evening free.
Saturday 12 May.
Breakfast between 5-5:30 a.m.; depart for Rondeau Provincial Park at 5:45 a.m.; arrive back at the motel by 6:00 p.m. Evening free.
Sunday 13 May.
Breakfast 6-6:30 a.m.; spend 3 or 4 hours at Point Pelee before returning home; arrive in Ottawa around 8:00 p.m.

NOTES: Reservations should be made as soon as possible by calling the Club number (722-3050). Payment in full must be received by March 1, 2001. For a full refund, notice of cancellation must be made before March 15th. Subsequ-ent to this deadline, refunds will be given only in the case of special circumstances and the Club reserves the right to delay a decision until after the excursion has occurred. A trip cancellation waiver (for medical reasons only and applicable prior to the date of departure) is available at an additional cost of $10.00 per person and is payable at the same time as your trip payment. Claims for reimbursement must be supported by a medical certificate. Be prepared for large crowds in the National Park. The bus will be nearby at all times during the day. ¤

DEADLINE: Material intended for the April-June 2001 issue must be in the editor's hands by February 1, 2001. Mail your manuscripts to:

Karen McLachlan Hamilton
2980 Moodie Drive, Nepean, ON K2J 4S7
H: (613) 838-4943 e-mail: *hamilton@storm.ca*

ANY ARTICLES FOR TRAIL & LANDSCAPE?

Have you been on an interesting field trip or made some unusual observations recently? Is there a colony of rare plants or a nesting site that needs protection? Write up your thoughts and send them to *Trail & Landscape*. We can accept e-mail, IBM-compatible diskettes, or submissions in traditional form—typed, written, printed or painted!

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